A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING BREAST FEEDING PROBLEMS AMONG PRIMI GRAVIDA MOTHERS AT THE SELECTED HOSPITALS AT DINDIGUL

Registration No: 301723052.

A DISSERTATION SUBMITTED TO THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY CHENNAI, IN

PARTIAL FULFILMENT FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING

OCTOBER – 2019

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Internal Examiner **External Examiner**

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CERTIFICATE

Certified that this is the bonafide work of **Ms. G. Prince Rose,** final year M.Sc (Nursing) Student of Jainee College of Nursing, Dindigul district, Tamil Nadu. submitted in Partial fulfillment of the requirement for the Degree of Master of Science in Nursing to The Tamil Nadu Dr .M.G.R. Medical University, Chennai under the Registration No: **301723052.**

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"For the Lord gives wisdom; from his mouth come knowledge and understanding".

(Proverbs 2: 6)

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LIST OF ABBREVIATIONS

STP	**STRUCTURED TEACHING PROGRAMME**
SD	**STANDARD DEVIATION**
NS	**NOT SIGNIFICANT**
HS	**HIGHLY SIGNIFICANT**
df	**DEGREES OF FREEDOM**
PPT	**POWER POINT**

ABSTRACT

PROBLEM STATEMENT

"**A study to assess the effectiveness of structured teaching programme on knowledge of primigravida mothers regarding breast feeding problems in selected hospitals, Dindigul**".

OBJECTIVES OF THE STUDY

1) To assess the knowledge of primigravida mothers regarding breast feeding problems.
2) To find out the effectiveness of structured teaching programme on knowledge regarding breast feeding problems among primigravida mothers.
3) To find out the association between the pre and post test knowledge score of primigravida mothers regarding breast feeding problems and the selected demographic variable

METHODS

Conceptual framework of the study is based on the Revised Health Promotional Model (Pender 1996) by Nola.J.Pender. Based on the problem selected and objective of the study quasi-experimental one group pre-test post-test design without control group was selected.

The study setting was selected Meenakshi hospital, Dindigul. 60 primigravida mothers were selected as samples by non-probaility convenient random sampling technique. Data was collected by administering structured questionnaire before and after the implementation of structured teaching programme. Data were analyzed using descriptive and inferential statistics and represented in tables and graphs.

RESULTS

In the present study, 90% of the primigravida mothers had inadequate knowledge on breastfeeding problems before the implementation of structured teaching programme. But after the implementation of structured teaching programme 16.7% of them had moderately adequate knowledge and 83.3% of them had adequate knowledge

The mean pre-test scores was 42.33% and the mean post-test scores of 80.54% which was significant at P-value of 0.001 level which showed significant increase in knowledge of primigravida mothers and thus it proves the effectiveness of the structured teaching programme.

In the present study, there was no significant association between demographic variables such as age (years), religion, occupation, education, place of residence, period of gestation and post-test knowledge score of primigravida mothers

INTERPRETATION AND CONCLUSION

The study showed that there was a significant improvement in the knowledge scores after the administration of structured teaching programme. Hence it can be concluded that structured teaching programme was effective in improving the knowledge of primigravida mothers regarding breastfeeding problems..

KEY WORDS

Structured teaching programme, primigravida mothers, effectiveness, knowledge, breastfeeding problems.

LIST OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ANNEXURES

CHAPTER – I

INTRODUCTION

CHAPTER -I

INTRODUCTION

"Breast feeding is a mother's gift to herself, her baby and the earth"

-Pamela. k.wiggins

Pregnancy is unique, exciting and often joyous time in a woman's life, as it highlights the woman's amazing creative and nurturing powers while providing a bridge to future. Pregnant women need also to be responsible women so as to best support the health of her future child.

Pregnancy causes major physiological changes in a woman's body. These changes are mainly due to hormonal, metabolic and mechanical factors. Breasts are accessory reproductive organs, where major changes occur. These changes are due to increased level of hormones like estrogen, progesterone and prolactin. The changes breast undergoes is increase in size, which makes it feel heavy and tender, along with that nipples also become tender. Many women due to these changes feel some sensation in their breasts such as tingling and soreness.

In a normal anatomical structure of a breast, the nipples are small conical eminence4. In some women; there is an altered anatomical structure of the nipples and these are referred as flat, inverted and retracted nipples.

Certain changes occurring during pregnancy may lead to some problem to the breasts. These problems are commonly seen during the second and third trimesters. The milk ducts preparing for breastfeeding may have leakage of colostrum that makes the surface of the nipples dry, leading to cracked nipples, causing discomfort to the women.

Breastfeeding is an art and skills which need to be learnt and mastered. This skill has to be learnt and followed by mothers not only to feed their infants but also to avoid breastfeeding complications. One of the important steps in breastfeeding technique is helping the baby to latch on the breast correctly. A good latch eliminates the problem of sore nipples and proper breastfeeding reduces the chances of other breastfeeding complications. Some primiparous inexperienced mothers need some help and should be made aware about the importance of breastfeeding and its techniques during the antenatal period, so as to prevent complications in the later periods.

Women become mothers with little or no ability to breast feed, which makes them more vulnerable to difficulties. Problems associated with breast feeding can include engorgement, sore or painful nipples, plugged ducts and mastitis. Because of these problems, it causes distress, mild discomfort or significant pain, which in turn prompts them to stop breast feeding after a few weeks. However, these problems can be treated effectively.

The above mentioned problems can be prevented effectively if due care is taken by the pregnant women from the beginning of pregnancy. To correct the anatomical defects, physical preparation such as nipple rolling should be taught during antenatal period as a way of making woman's nipples more protuberant. The other breast feeding related complications chances can be reduced by giving proper education in the antenatal periods.

NEED FOR THE STUDY

Feeding breast milk to a new born is often accompanied by challenges. These challenges can be difficult to deal with, especially when combined with the normal anxieties of mothers about promoting health of a newborn.

Breast feeding is most important thing for all the mothers and newborn babies. It is unique experience to be cherished. All the neonates are absolutely dependent on their mother's milk for survival. In fact by the end of the 19th century, virtually 100% non breast fed babies were doomed to die because of infection. The rapid introduction of bottle feeding has been associated with huge increase of infant malnutrition during the 20th century.

It is highly observed that primigravida mothers usually have many doubts and fears about proper breast feeding and they have huge concerns about the optimum care that has to be given to their newborn babies. For this, they need to be adequately educated and helped in preventing further breast feeding problems.

A cross-sectional study was conducted among 30,000 American women on common breastfeeding difficulties. The study revealed that 32% of women did not start breast feeding, 14% breastfeed for more than four weeks. The study showed that the common reasons for stopping breastfeeding were sore or cracked nipples, not producing enough milk or the baby had difficulties in taking breast milk. The study concluded that there was a lack of awareness among the mothers regarding prevention of breastfeeding problems and there was a need for extensive support for breastfeeding mothers, especially in early weeks, when women have the most difficulties in establishing breastfeeding.

Breast engorgement incidence rate is high in primiparaous mother and patient with inelastic breast. Acute mastitis incidence rate is 2- 5% in lactating and less than 1% in non lactating women. A descriptive study on breast feeding problems in the first six months of life in rural dindigul among 420 mother infant pairs showed that the onset of breast feeding problems occurred in 31.7% of women during the first month

of life and 76.9% in the first week, 7.7% in the second and 15.4% in the third week respectively.

The world wide occurrence of mastitis varies considerably, 12-35% of mothers develop mastitis due to sore nipple and up to 20% of the breast feeding mothers experienced mastitis in the first six months of breast feeding with most in incidents in 2-3 weeks of postpartum period. The incidence of abscess was noted in about 5-11% of women with mastitis.

A study on the breast feeding practices and problems related to breast feeding among 327 women in Bathlagundu revealed that about one-quarter of mothers had lactational problems. The study found that 28.4% had initial suckling problems, 8.6% had sore nipple, 8.6% had engorgement, 9.8% had mastitis and abscess, 4.9% had less milk and 3.7% had no milk.

The promotion and support of breast feeding is a global priority and an important child survival intervention. WHO advocates exclusive breast feeding, as advocated lack of confidence in mother's ability to breast feed, breast pain or soreness, perception of insufficient milk supply and lack of individualized are some of the reasons for early breastfeeding discontinuation14. Some of these problems can be overcome if the women are informed antenatally. So, the investigator feel that it is necessary to impart knowledge to the primigravida mothers regarding breast feeding problems and its management with the help of structured teaching programme, which will help them to prevent complications and promote breast feeding.

This chapter deals with the statement of the problem, objectives of the study, operational definitions, conceptual framework and hypothesis made in the study. The statement of the problem and objectives of the current study are as follows:

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of structured teaching programme on knowledge regarding breast feeding problems among primi gravida mothers at the selected hospitals at dindigul.

OBJECTIVES

1. To assess the knowledge of primigravida mothers regarding breast feeding problems.
2. To find out the effectiveness of structured teaching programme on knowledge regarding breast feeding problems among primigravida mothers.
3. To find out the association between the pre and post test knowledge score of primigravida mothers regarding breast feeding problems and the selected demographic variable.

HYPOTHESIS

H0: There is no significant difference between pre and post test knowledge scores of primigravida mothers regarding breast feeding problems.

H0.1: There is no significant association between the pre and post test knowledge scores of primigravida mothers regarding breast feeding problems and the selected demographic variables.

H1.1: There is a significant difference between pre and post test knowledge scores of primigravida mother regarding breast feeding problems.

H1.1: There is a significant association between pre and post test knowledge scores of primigravida mothers regarding breast feeding problems and the selected demographic variables.

OPERATIONAL DEFINITIONS

ASSESS: In the present study assess refers to, 'measure the knowledge of the primigravida mothers regarding the breastfeeding problems'.

EFFECTIVENESS: In the present study effectiveness refers to, 'gain of knowledge among primigravida mothers regarding breast feeding problems as determined by the post-test scores with the pre-test knowledge scores'

STRUCTURED TEACHING PROGRAMME: In the present study structured teaching programme refers to, 'a detailed, well planned teaching strategy to enhance awareness among primigravida mothers regarding breast feeding problems'.

KNOWLEDGE: In the present study knowledge refers to, 'the correct response from the primigravida mothers regarding breast feeding problems as elicited through self administered questionnaire before and after structured teaching programme'.

PRIMIGRAVIDA MOTHERS: In the present study primigravida mother refer, a women who is pregnant for the first time and third trimester'

BREASTFEEDING PROBLEMS: In the present study breastfeeding problem refers to, 'the difficulty and inability in giving breast feeding as expressed by mothers or observed by the investigator which may include flat and inverted nipple, sore and cracked nipple, breast engorgement, mastitis and abscess, leakage and not having enough milk'.

CONCEPTUAL FRAMEWORK

A concept is a term that abstractly describes a phenomenon or an object thus providing it with a separate identity or meaning. Concepts are the basic elements of theories and conceptual models.

A theory offers a systematic explanation about how phenomena are interrelated. In the same way conceptual models provide a perspective regarding interrelated phenomena but are more loosely structured than theories.

A conceptual framework is the conceptual underpinning of a study including overall rationale and conceptual definitions of key concepts. It provides clear description of variables suggesting methods to conduct the study and guiding the interpretation, evaluation and integration of findings.

Conceptual frame work of the present study is founded on the Revised Health Promotional Model (Pender 1996) by Nola.J.Pender.

Health Promotional Model encompasses behaviors for enhancing health and potentially applies across the life span (Pender, 1996; Pender et al, 2002). The Health promotional Model has been used extensively as a framework for research aimed at predicating health promoting lifestyle as well as specific behaviors. Major concepts of Health Promotional Model are-

- Individual characteristics and expectations
- Behavior specific cognitions and affect
- Behavioral outcomes

The main Individual characteristics and Expectations that affect subsequent health actions of the primigravida mothers to overcome breastfeeding problems.

Prior related behavior – refers to frequency of the same or similar behavior in the past. Direct and indirect effects on the likelihood of engaging in the health-promoting behavior. In the present study prior related behavior is the previous knowledge regarding breastfeeding problems.

Personal factors – are characterized as biological, psychological and socio-cultural. Personal biological factors – These factors are variables such as age, dietary pattern and gestational age. Personal psychological factors- These factors are variables such as self-esteem, self motivation, personal competence, perceived health status and definition of health. Present study does not considered any personal psychological factors.

Personal socio-cultural factors-include variables such as race, ethnicity, acculturation, education and socioeconomic status. In this study the main socio-cultural factors under consideration are type of family, religion, duration of marital life, education, occupation monthly family income, place of residence.

The main Behavioral – specific cognitions and affect are as follows:

1. Perceived benefits of action- refer to the anticipated positive outcomes that will occur from health behavior.15 Perceived benefit of action in the present study is that primigravida mothers can prevent and manage breastfeeding problems in the postnatal period.
2. Perceived barriers to action- are anticipated, imagined or real block and personal costs of undertaking a given behavior.15In this study the perceived barriers to take health promoting actions are preoccupied ideas, physical limitation or lack of readiness or initiation to adopt measures for the prevention and management of breastfeeding problems.
3. Perceived self–efficacy – perceived self efficacy is the judgment of personal capability to organize and execute a health promoting behavior 15 In the present study perceived self-efficacies is to realize proper methods to prevent the occurrence of breastfeeding problems.

4. Interpersonal influences – are cognitions concerning behaviors, beliefs or attitudes of others. Primary sources of interpersonal influences are peer groups, families and health care providers 15. In this study interpersonal influences are the interaction of the peer groups, relatives and health personnel.
5. Activity related affect - the subjective feelings that occur before, during, and following an activity can influence whether a person will repeat the behavior again or maintain the behavior 15. In this study, before Intervention: doubts regarding the precautions to be taken to prevent breastfeeding problems, after Intervention: increased knowledge and self confidence
6. Situational influences – situational influences are personal perceptions and cognitions of any given situation or context that can facilitate or impede behavior. They include perceptions of option available, demand characteristics and aesthetic features of the environment in which given health promoting behavior is proposed to take place. This study considered lack of knowledge; and willingness to adopt healthy breastfeeding practices.

The immediate antecedents of behavioral outcome are as follows:

1. Commitment to a plan of action: describes the concept of intention and identification of a planned strategy that leads to implementation of health behavior. In this study the commitment to a plan of action is the active participation of primigravida mothers in the structured teaching programme and gaining of the knowledge regarding breastfeeding problems, and the planned strategy that leads to positive health behavior.
2. Health promoting behavior – A health promoting behavior is an end point or action outcome directed toward attaining positive health outcomes such as optimal well being, personal fulfillment and productive living. In this study

health promoting behavior such as understands proper measures to overcome breastfeeding problems.

3. Immediate competing demands and preferences- Competing demands are those behaviors over which an individual has a low level of control. Competing preferences are behaviors over which an individual has a high level of control; however, this control depends on the individual's ability to be self regulating or to not give in. In present study, physiological conditions of mothers are competing demands and lack of knowledge; lack of interest to adopt measures to prevent breast feeding problems are competing preferences.

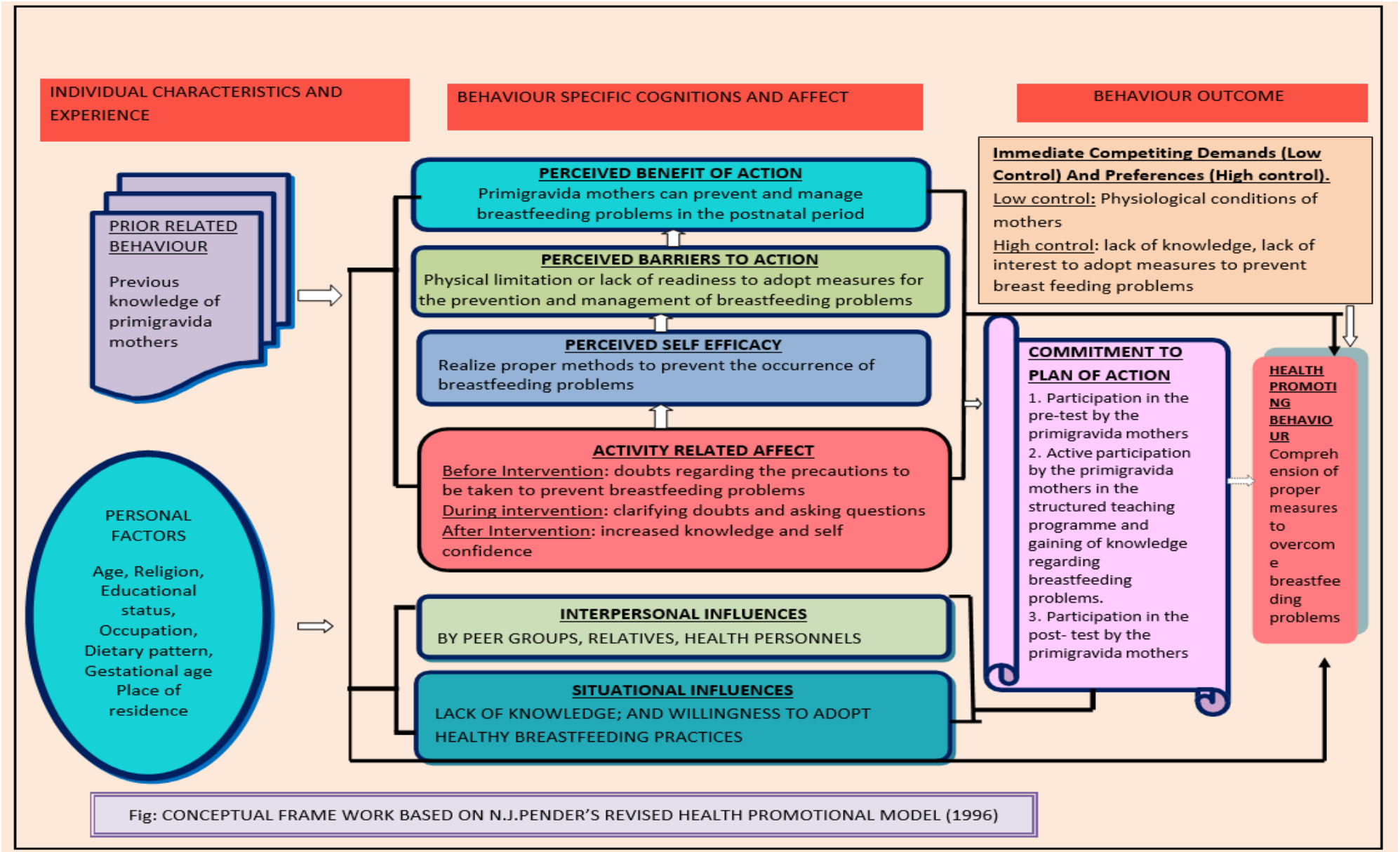

Fig: CONCEPTUAL FRAME WORK BASED ON N.J.PENDER'S REVISED HEALTH PROMOTIONAL MODEL (1996)

CHAPTER – II

REVIEW OF LITERATURE

CHAPTER II

REVIEW OF LITERATURE

Review of literature for the present study has been organized under the following headings.

- Studies related to antenatal preparation for breastfeeding.
- Studies related to breastfeeding problems.
- Studies related to structured teaching programme.

STUDIES RELATED TO ANTENATAL PREPARATION FOR BREAST FEEDING

A descriptive study was conducted at tertiary hospitals in Pondicherry regarding antenatal counseling on breastfeeding. Every third primigravida mothers admitted in the maternity ward from June to December 2005 was recruited. Among these 144 primigravida mothers, 108 who had a minimum of three antenatal visits were booked. These 108 mothers were administered a pre-test semi structured questionnaire on breast feeding. The awareness among mothers (both counseled and not counseled) regarding health information pertaining to breast feeding was assessed. The findings of the study of the booked mothers, 21 %(n=23) had received. Some antenatal counseling about breast feeding while 79 %(n=85) had not received any such counseling. Awareness related to breastfeeding among mothers in the counseled group was better than those in 'not counseled' group. Even in the counseled group awareness among mothers with regard to correct breast feeding techniques and concept of continuing breast feeding during illness in the baby was no different from those in the 'not counseled group'.

Therefore existing antenatal counseling on breast feeding is inadequate in the population studied and needs to be strengthened.

A descriptive and evaluative study was conducted to find out the effectiveness of PTP on postnatal care for antenatal mothers in selected hospitals in Kerala. The sample consisted of thirty antenatal mothers, admitted for delivery selected using purposive sampling technique. The data was collected by interview method using a structured knowledge questioner. After conducting the pre-test, PTP was given on postnatal care was administered to the respondents. Post test was conducted on the eighth day using the same tool. The finding showed that the PTP was effective ($t= 30.56$, $p\leq 0.01$) in increasing the knowledge of antenatal mothers on postnatal care.

In 2005 a study was conducted in National University Hospital Singapore by the department of obstetrics and gynecology, on simple antenatal preparation to improve breast feeding practices. A randomized controlled trial was carried out in a tertiary referral center from May 2002 to December 2004. Random samples of eligible low – risk antenatal mothers were recruited from the hospital. Group A received breast feeding educational material and individual coaching from a lactation counselor; whereas, Group B received breast feeding education material with no counseling. Group C received routine antenatal care only. Mothers receiving individual counseling and educational material practiced exclusive and predominant breast feeding more often than mother receiving routine care alone at 3 months odds ratio[OR] 2.6, 95% confidence interval [CI] 1.2- 5.4 and 6 months [OR] 2.4, 95%[CI] 1.0- 5.7 postpartum. They concluded that where breast feeding practices were suboptimal, simple antenatal education and counseling significantly improved breast feeding practice up to 3months after delivery.

A study was conducted regarding mastitis which is most common problems experienced by women who are breastfeeding. The aims of this paper are to compare rates of mastitis in primiparous women receiving public hospital care (standard or birth centre) and care in a co-located private hospital, and to use multivariate analysis to explore other factors related to mastitis. Data from two studies (a randomised controlled trial [RCT] and a survey) have been combined. The RCT (Attachment to the Breast and Family Attitudes to Breastfeeding, ABFAB) which was designed to test whether breastfeeding education in mid-pregnancy could increase breastfeeding duration recruited public patients at the Royal Women's Hospital at 18-20 weeks gestation. A concurrent survey recruited women planning to give birth in the Family Birth Centre (at 36 weeks gestation) and women in the postnatal wards of Frances Perry House (private hospital). All women were followed up by telephone at 6 months postpartum. Mastitis was defined as at least 2 breast symptoms (pain, redness or lump) AND at least one of fever or flu-like symptoms. The 6 month telephone interview was completed by 1193 women. Breastfeeding rates at 6 months were 77% in Family Birth Centre, 63% in Frances Perry House and 53% in ABFAB. Seventeen percent (n = 206) of women experienced mastitis. Family Birth Centre and Frances Perry House women were more likely to develop mastitis (23% and 24%) than women in ABFAB (15%); adjusted odds ratio (Adj OR) ~1.9. Most episodes occurred in the first 4 weeks postpartum: 53% (194/365). Nipple damage was also associated with mastitis (Adj OR 1.7, 95% CI,1.14, 2.56). We found no association between breastfeeding duration and mastitis. The prevention and improved management of nipple damage could potentially reduce the risk of lactating women developing mastitis.

A randomized controlled trial was carried out in a tertiary referral center from May 2002 to December 2004. A random sample of eligible low-risk antenatal patients

was recruited from clinics in the National University Hospital, Singapore. Group A received breastfeeding educational material and individual coaching from a lactation counselor. Group B received breastfeeding educational material with no counseling. Group C received routine antenatal care only. A total of 401 women were recruited. Mothers receiving individual counseling and educational material practiced exclusive and predominant breastfeeding more often than mothers receiving routine care alone at 3 months (odds ratio [OR] 2.6, 95% confidence interval [CI] 1.2-5.4) and 6 months (OR 2.4, 95% CI 1.0-5.7) postpartum. More mothers practiced exclusive and predominant breastfeeding at 6 months among women receiving individual counseling compared with women exposed to educational material alone (OR 2.5, 95% CI 1.0-6.3). Where breastfeeding practices are suboptimal, simple one-encounter antenatal education and counseling significantly improve breastfeeding practice up to 3 months after delivery. Provision of printed or audio visual educational material is not enough. Health care workers should make every effort to have one face-to-face encounter to discuss breastfeeding with expectant mothers before they deliver.

A randomized controlled trial was carried out in a tertiary hospital in Singapore to investigate whether antenatal breast feeding education alone or postnatal lactation support alone improves rates of exclusive breast feeding compared with routine hospital care. Around 450 women with uncomplicated pregnancies were participated. Primary outcomes were rates of exclusive breast feeding at discharge from hospital and two weeks, six weeks, three months, and six months after delivery. Secondary outcomes were rates of any breast feeding. Compared with women who received routine care, women in the postnatal support group were more likely to breastfeed exclusively at two weeks (relative risk 1.82, 95% confidence interval 1.14 to 2.90), six weeks (1.85, 1.11 to 3.09), three months (1.87, 1.03 to 3.41), and six months (2.12, 1.03 to 4.37)

postnatally. Women receiving antenatal education were more likely to breast feed exclusively at six weeks (1.73, 1.04 to 2.90), three months (1.92, 1.07 to 3.48), and six months (2.16, 1.05 to 4.43) postnatally. The numbers needed to treat to achieve one woman exclusively breast feeding at six months were 11 (6 to 80) for postnatal support and 10 (6 to 60) for antenatal education. Women who received antenatal education were more likely to exclusively or predominantly breast feed two weeks after delivery compared with women who received a postnatal support (1.53, 1.01 to 2.31). The rate of any breastfeeding six weeks after delivery was also higher in the postnatal support group compared with women who received routine care (1.16, 1.02 to 1.31). Antenatal breast feeding education and postnatal lactation support, as single interventions based in hospital both significantly improve rates of exclusive breast feeding up to six months after delivery.

A study was conducted on antenatal education and postnatal support strategies for improving rates of exclusive breast feeding. Randomized controlled trial design was selected for this study. The study was done in a tertiary hospital in Singapore. They selected 450 women with uncomplicated pregnancies. Compared with women who received routine care, women in the postnatal support group were more likely to breast feed exclusively for two weeks (relative risk 1.82, 95% confidence interval 1.14 to 2.90) six weeks (1.85, 1.11 to 3.09) three months (1.87, 1.03 to 3.41) and six months (2.12, 1.03 to 4.37) postnatally. Women receiving antenatal education were more likely to breast feed exclusively for at six months were 11(6 to 80) for postnatal support and 10(6 to 60) for antenatal education. Women who received postnatal support were more likely to exclusively or predominately breast feed for two weeks after delivery compared with women who received antenatal education (1.53, 1.01 to 2.31).Hence it is concluded from the study that the mothers receiving advice regarding breastfeeding

during the antenatal period tend to feed their babies for greater duration than who did not received during the same period.

STUDIES RELATED TO BREAST FEEDING PROBLEMS

A descriptive study was conducted on breastfeeding problems and to know the reasons for starting top feeds in infants less than 6months was conducted in rural dindigul among 420 mother infant pairs of 224 villages. The findings showed that the onset of breastfeeding problems occurred in 31.7% of cases in the first month of life. Further analysis showed that 76.9% occurred in the first week of life, 7.7% in the second and 15.4% in the third week. Not enough milk was responsible for starting feeds in 53.6% of cases, and 23.1% of mothers had other problems like sore nipple, mastitis, breast engorgement, breast abscess and other illness. The study revealed that the onset of breastfeeding problem was alarmingly high in neonatal period and early initiation of breastfeeding lessened in the incidence of breastfeeding problems. Study concluded that the first week after delivery is crucial for the success or failure of breastfeeding. The mother may develop problems due to poor positioning of the baby, delayed initiation of breastfeeding and doubts about adequacy of milk.

A cohort study was to evaluate the relationship between psychological stress and the occurrence of breastfeeding associated disorders. In a prospective cohort study of 379 primiparous women without breast anomalies or diseases, psychometric data were collected from participants between the confirmation of the pregnancy and one year post- partum. Primarily, standardized questionnaires were used for data analysis while additional data was gathered in follow-up interviews, conducted in St. Joseph-Hospital, Department of Obstetrics and Gynecology, Berlin, Germany. Termination of breastfeeding in the first six months after childbirth is frequently caused by

breastfeeding-related diseases and problems of the breast such as pain, milk stasis or mastitis. The subgroup analysis showed a significant relationship between stress and breastfeeding- related diseases. Women with pain, cracked nipples, milk stasis or mastitis reported a higher stress level than women without breast problems. Additionally, the majority of women with breast problems and increased psychological stress gave up breastfeeding sooner and, in contrast to the group without problems, indicated significantly more frequently that the milk quantity was insufficient. Breast diseases during lactation are associated with higher levels of psychological stress.

A prospective cohort study with questionnaire and telephone follow-up was conducted. Women were recruited after delivery at either the teaching hospital or the only private hospital with an obstetric service during May to December 1994 in Newcastle, New South Wales and were followed up at home for six months. 1,075 breastfeeding women were recruited and were sent follow-up questionnaires at three, eight and 26 weeks post- delivery. Mastitis occurred in 20% (95% CI 18-22%) of women during the first six months. Factors that were statistically significantly and independently related to mastitis were: university or college education (HR=1.93, 1.18-3.16), blocked duct (HR=2.43, 1.68-3.49), cracked nipples (HR=1.44, 1.00-2.07), use of creams on nipples (HR=1.83, 1.22-2.73), particularly papaya cream (Relative Risk = 1.83, 1.36-2.47), and always starting with the alternate breast on consecutive feeds (HR=2.28, 1.50-3.44). Blocked ducts and cracked nipples serve as warning signs for mastitis. Use of some creams may increase the risk of mastitis and their value should be tested in clinical trials. We have identified several pre-natal and post-natal markers for increased risk of mastitis that may assist in its early identification and treatment. The use of creams on nipples may introduce pathogens that cause mastitis and should be avoided.

A randomized controlled trial comparing the treatments for sore nipples, Patients were seen for a maximum of 3 follow-up visits within 10 days, or until the resolution of symptoms. Around 42 breast-feeding women were presented to the Maternal-Infant Lactation Center for the treatment of sore nipples. All patients with breast infection or chronic unrelated pain conditions were excluded from the study. After informed consent, patients were randomized to receive either a hydrogel wound dressing or breast shells and lanolin. All patients underwent a history, physical examination of the infant and the mother's breasts, assessment of breast-feeding technique, and breast-feeding instruction. The degree of pain on self-report questionnaires and the change in scores for physical examination, breast- feeding technique, and pain behaviors during breast-feeding were the reasons or the mothers to stop breast feeding their babies. Although both treatments, in association with instruction in breast-feeding technique, were effective, greater improvement was seen in the group using breast shells and lanolin. This reached statistical significance for physician-rated healing ($P<.01$) and self-reported pain ($P<.05$). There were significantly more infections in the dressing group ($P<.05$), which resulted in early discontinuation of the study. Prevention of sore nipples by teaching proper technique on the initiation of breast-feeding should be instituted.

A retrospective case-controlled study on women experiencing extraordinary breastfeeding problems was conducted by Research and Practice Development Centre, University of Queensland and Blue Care,Brisbane, Qld, Australia. The study investigated factors empowering women to continue breastfeeding despite experiencing extraordinary difficulties. The study documented the experiences and characteristics of women who continued to breastfeed (continuing cohort) and those who weaned (non-continuing cohort) despite extraordinary difficulties. The study was undertaken in

south-east Queensland, Australia in 2004.Forty women (20 in each cohort) were recruited over six months. Both quantitative (breastfeeding knowledge questionnaire) and qualitative (semi-structured interviews) data were collected. This paper describes the qualitative data. Women from both cohorts expressed idealistic expectations about breastfeeding and experienced psychological distress due to their breastfeeding problems. Those who continued breastfeeding used coping strategies and exhibited personal qualities that assisted them to overcome the difficulties experienced. Women who continued to breastfeed were more likely to report relying on a health professional they could trust for support. This latter cohort was also more likely to report having peers with which they shared their experiences. This study has highlighted the methods women use to deal with breastfeeding problems. It has also revealed modifiable factors that can improve breastfeeding duration.

A prospective cohort study was carried out from April 2005 to January 2006. 822 mothers who had given birth in April 2005 from all of Bavaria participated in the study. The aim of the present evaluation is to describe the frequency of breast-feeding as well as breast-feeding problems of mothers in Bavaria and to derive practical measures to promote breast- feeding. The participants of the study were questioned about their breast- feeding habits in 4 follow-ups. The follow-up quota was 82%.The frequency of breast-feeding exclusively according to needs at 2-6 days following delivery was about 62%. At the end of the infants' second month of life only 46.7% of the infants were breast-fed at least 7 times. In the first 2 months the prevalence of breast-feeding problems in mothers who still breast-feed and those who had stopped was about the same. In mother-infant pairs who no longer breast-feed, the concerns about too little milk, sore nipples and drinking or sucking problems of the infant predominated. Breast-feeding problems that lead to termination of nursing are often due to a lack of milk or,

respectively, a mother's concern about giving too little milk. Prospective, quality-assured counseling should focus on increasing the frequency of breast-feeding and on an improvement of suckling techniques in the first weeks of life. The medical necessity to supplementary feeding should be critically assessed and clearly explained to the mother in order to avoid giving her the feeling that she is unable to adequately feed her own child.

A randomized clinical trial compared frequencies of exclusive breastfeeding and lactation-related problems during the first 30 days among 74 mothers who received a 30-minute counseling session on breastfeeding technique in the maternity ward, and 137 controls. The frequency of exclusive breastfeeding among mothers who had received intervention was similar to controls by 7 days (79.7% vs. 82.5%, respectively) and 30 days (60.8% vs. 53.3%). There was no difference between groups in the frequency of sore nipples at 7 and 30 days, in breast engorgement and mastitis, and in the quality of breastfeeding technique at 30days. Therefore, a single intervention at maternity was not sufficient to improve breastfeeding technique, increase exclusive breastfeeding rates, and reduce the incidence of breastfeeding problems during the first month.

A randomized controlled trial and a survey study was conducted regarding the incidence of breast abscess in lactating women. Women were recruited from two hospitals on one site in Melbourne, Victoria, the Royal Women's Hospital (public) (1999-2001) and Frances Perry House (private) (2000-2001). A total of 1193 of 1311 (91%) primiparous, English-speaking women from a diverse range of backgrounds, including those receiving public clinic care, private care and birth centre care. A structured telephone interview was conducted on breastfeeding at six months postpartum. Two hundred and seven women experienced mastitis. Five women

developed a breast abscess: 0.4% of women who commenced breastfeeding (95% CI 0.14-0.98); 2.9% of women who took antibiotics for mastitis (95% CI 1.0- 6.7). Although many authors estimate that 11% of women with mastitis develop a breast abscess, the incidence of lactating breast abscesses in Australia appears to be lower than reported in the past. Our estimate is that 3% of women with mastitis will develop a breast abscess.

A study was conducted in Western countries during the 1960s and 1970s; sore nipples and insufficient milk were common problems that made it hard for mothers to maintain breastfeeding for long. This study investigated the relationship of breastfeeding problems to nursing behavior and pacifier use. Fifty-two healthy mother-infant pairs with breastfeeding problems were referred for observation of nursing behavior to a breastfeeding clinic at the Department of Pediatrics of Malmo General Hospital, Malmo, Sweden, from August1987 to July 1989. The infants ranged in age from 1 to 17 weeks. A faulty nursing pattern was corrected as necessary. Forty mother-infant pairs with no breastfeeding problems provided a control group. In most cases the nursing problems were related to incorrect sucking technique. The difference in technique of the study group compared with the control group was significant ($p = 0.0001$). The continuation of breastfeeding was poorer if the infant already had become used to bottle-feeding. Pacifier use was more common in conjunction with breastfeeding problems and in cases with a faulty superficial nipple-sucking technique. Breastfeeding problems may be prevented by the adoption of hospital routines that do not interfere with the start of breastfeeding and by the avoidance of extensive use of pacifiers.

A study was conducted to assess the effects of frequent breastfeeding compared to less frequent breastfeeding in the early days after birth. Randomized and quasi-

randomized trials comparing on demand or frequent breastfeeding (two or three hourly) schedules in hospital were compared with four hourly restricted feeds. Trial quality was assessed and data were extracted independently by two reviewers. Three trials involving 400 women were included. There are significant methodological limitations in some of the studies. Compared of two hourly, three hourly or on demand breastfeeding, restricted (less frequent four hourly breastfeeding) was associated with greater discontinuation of breastfeeding by four to six weeks postpartum (relative risk 1.53, 95% confidence interval 1.08 to 2.15). Restricted breastfeeding was associated with increased incidence of sore nipples (relative risk 2.12, 95% confidence interval 1.25 to 3.21) and the need to give additional (formula) feeds (relative risk 3.14, 95% 1.24 to 8.00).

There appeared to be a number of disadvantages from restricting breastfeeding to a four hourly schedule in the first few days after birth. More frequent or on demand breastfeeding was associated with fewer complications and longer duration of breastfeeding.

A study was conducted to assess the effect of birth centre on the duration of breastfeeding, breastfeeding complications, and women's experiences of breastfeeding. Randomized controlled trial was used in the hospital birth centre at South Hospital, Stockholm, and standard obstetric care in the Greater Stockholm area. One thousand two hundred and thirty women with expected date of birth between October 1989 and February 1992, interested in participating in a birth centre trial, and meeting medical low- risk criteria. Six hundred and seventeen women were allocated to the experimental group offered birth centre care (EG), and 613 to the control group offered standard obstetric care (CG). The main outcome measures included duration of breastfeeding, breastfeeding complications such as sore nipples, engorgement, milk stasis, and

women's experiences of breastfeeding. The findings showed no difference was found between EG and CG in the duration of breastfeeding. Ninety three per cent in both groups were breastfeeding exclusively two months postpartum. The average number of months breastfeeding, exclusively or partly when investigated one year after the birth was 8.6 in EG and 8.5 in CG. No difference was observed in women's experiences of breastfeeding but rather more women in EG than in CG reported sore nipples, 36% and 30% respectively ($p= 0.002$). The larger proportion of sore nipples and milk stasis in the EG might have been due to early discharge, or to midwives less skilled in assisting with breastfeeding at the birth centre than in the postpartum wards.

A study was conducted on the effect of the method of breastfeeding on engorgement, mastitis and infantile colic was conducted on two groups of subjects in South Australia. The sample size in the experimental group (prolonged emptying one breast at each feed) was 150 and that in the control group (both breasts equally drained at each feed) was 152. Both the groups were followed prospectively to six months after delivery. The study revealed that the experimental group had lower incidence of breast engorgement in the first week (61.4%, 74.3% $p< 0.02$) and infantile colic over six months 91.2%,22.4% $p<0.02$). In both groups perceived insufficient milk syndrome was the main reason for cessation of breastfeeding. The study concluded that the method of breastfeeding will influence breast engorgement and infantile colic.

A descriptive retrospective survey was conducted on women attending two lactation/ breastfeeding conferences about their experiences with mastitis. Sixty mothers comprised the sample, where one- third of the sample reported having mastitis while breastfeeding their last child. Episodes of mastitis occurred most often in the first three months postpartum; however, one- third occurred after six months and nearly one-quarter occurred after one year of breastfeeding. The outer upper quadrants of both

breasts were found to be the most frequent sites of infection. The incidence of mastitis in the left and right breast did not differ. More than one- third of the respondents did not contact their physician when they developed mastitis and nearly half never used antibiotics for the infection. Mothers reported that the following factors (in order of importance) preceded their mastitis fatigue, stress, plugged duct, change in the number of feeding, engorgement/ stasis, an infection in the family, breast trauma and poor diet.

A study was conducted on treatments for breast engorgement during lactation (2001). National surveys have shown that painful breasts are the second most common reason for giving up breast feeding in the first two weeks after birth in UK. One factors contributing to such pain can be breast engorgement. The studies objective is to determine the effects of any proposed intervention to relieve symptoms of breast engorgement among breast feeding mothers. All randomized and quasi-randomized controlled trial is used, involving 424 women were included. Three different studies were identified which used cabbage leaves or cabbage extracts: no overall benefit was found. Ultrasound treatment and placebo were equally effective. Use of Danzen (an anti-inflammatory agent) significantly improved the total symptoms of engorgement when compared to placebo (odds ratio (OR) 3.6, 95% confidence interval (CI) 1.3 - 10.3) as did bromelain/trypsin complex (OR 8.02, 95% CI 2.8-23.3). Oxytocin and cold packs had no demonstrable effect on engorgement symptoms.

A study was conducted on antibiotics for mastitis in breast feeding women. Mastitis can be caused by ineffective positioning of the baby at the breast or restricted feeding. Infective mastitis is commonly caused by Staphylococcus aureus. Incidence of mastitis in breastfeeding women may reach 33%. Effective milk removal, pain medication and antibiotic therapy have been the mainstays of treatment. They selected randomized and quasi-randomized clinical trials (RCTs) comparing the

effectiveness of various types of antibiotic therapies or antibiotic therapy versus alternative therapies for the treatment of mastitis. Two trials met the inclusion criteria. One small trial (n = 25) compared amoxicillin with cephradine and found no significant difference between the two antibiotics in terms of symptom relief and abscess formation. Another, older study compared breast emptying alone as 'supportive therapy' versus antibiotic therapy plus supportive therapy, and no therapy. The findings of the latter study suggested faster clearance of symptoms for women using antibiotics, although the study design was problematic.

A study was conducted to investigate the effectiveness of appropriate breastfeeding technique in prevention of nipple sore to the priori-postnatal mothers of Sir Ivan Stedeford Hospital, Chennai. Sample subject of 60 priori–postnatal mothers were chosen by means of convince sampling. Thirty of them formed the control group and other thirty formed the experimental group. A structured teaching plan was administered to the experimental group of primi postnatal mothers by lecture, discussion and demonstration method. Pre test and post test on knowledge was conducted for both control and experimental group, practice and occurrence of nipple sore was also assessed for both groups and compared. The data obtained was analyzed and interpreted. The overall mean score of the experimental group was 42.14 in the pre-test and 77.38 in the post –test whereas for the control group, the overall mean score was 40.48 in the pretest and only 51.19 in the post test. The comparison of knowledge gain between experimental and control group in the post test scores, highlighted the difference after the structured teaching. The estimated' calculated value is 8.59 at Rho. The chi square test showed a significant association between the groups and experience of nipple pain (chi) ^ sup 2^ = 8.58 df =2 at Rho. The chi square test showed no significant association between the two groups and occurrence of nipple trauma.

A study was conducted to determine the effectiveness of a breastfeeding support service attached to a general practice. A lactation consultant (LC) was employed in a general practice in Happy Valley, Adelaide, over 12 months to provide an appropriate intervention programme of education and support for mothers experiencing problems with breastfeeding. The mothers were asked to evaluate the service via a postal questionnaire. The baseline rates of women in this practice who were solely breastfeeding were determined by a retrospective questionnaire sent to all mothers of the practice whose children were 18 months to 2 and half years of age. There were 119 mothers in the intervention group. There was a high breastfeeding initiation rate for both baseline (94.6%) and intervention (93.4%) groups. There were significantly higher breastfeeding rates in the intervention group at 24 and 26 weeks (63.3% v/s 51.2% at 24 weeks [p=0.015] and 64.7% v/s 50.6% at 26 weeks [p=0.018]. while there was no significant difference in the total number of breastfeeding problems encountered by either group significantly more mothers from the baseline group suffered from engorgement and/ or too much milk. Evaluation of the service indicated a high degree of satisfaction. Over 94% of the mothers found the service friendly, supportive and useful. This service provides an effective method for the support and protection of breastfeeding.

STUDIES RELATED TO STRUCTURED TEACHING PROGRAMME

An experimental study on breast feeding technique in prevention of nipple sore was conducted on 60 primi postnatal mothers in dindigul . Thirty of them formed the control group and the other thirty formed the experimental group. A structured teaching plan was administered to the experimental group. The results showed that the overall mean score of the experimental group was 42.14 in the pre-test group, the overall mean score was 40.48 in pre- test and only 51.19 in the post- test. In this study post-test

showed that experimental group had gain in knowledge and skill regarding breastfeeding where as the control group had more sore nipple. The comparison of knowledge gain between both groups highlighted the difference after the structured teaching. The study concluded that education on breastfeeding technique helps in prevention of nipple sore.

A study was conducted on effectiveness of structured teaching programme for mothers of infant on knowledge and attitude regarding infant regarding practice. 40 mothers were selected for the study, in that 34 mothers have 50% knowledge in feeding and immunization. Six mothers have below 50% knowledge. Pre-test knowledge score was 58.2% and post test knowledge score was 87.9%. From the finding it is concluded that the knowledge level increased after teaching programme.

A study was conducted to assess the effectiveness of structured teaching programme on knowledge and practice of breastfeeding and its problems among lactating mothers in Meenakshi hospital, dindigul. The descriptive evaluation study was conducted on 20 lactating mothers of hospitalized children, data collection done using a structured interview schedule and observational checklist, analysis of data revealed that 50% of mothers had satisfactory level of knowledge about the advantage of colostrums. The desirable mothers and child relationship before was 15% and after instruction was 50%, significant at P less than 0.05 levels.

CHAPTER – III

RESEARCH METHODOLOGY

CHAPTER III

RESEARCH METHODOLOGY

This chapter deals with the methodology selected by the investigator to study the effectiveness of structured teaching programme on knowledge of primigravida mothers regarding breast feeding problems in Meenakshi Hospital ,Dindigul.

Research methodology involves the systematic procedure, by which the investigator starts from the initial identification of the problem to its conclusion. It was considered as the backbone or the structure of the study. So methodology was a significant part of an investigation under which the investigator was able to project a conclusion of the study undertaken.

RESEARCH APPROACH

The selection of research approach is the basic procedure for the conduction of research enquiry. A research approach tells what data to collect and how to analyze it. It also suggests possible conclusions to be drawn from the data. In view of the nature of the problem selected for the study and the objectives to be accomplished, an evaluative research approach was considered the best to determine the effectiveness of structured teaching programme on knowledge of primigravida mothers regarding breast feeding problems.

RESEARCH DESIGN

A researcher's overall plan for obtaining answers to the research questions or for testing the research hypothesis is referred to as the research design. Research design helps the investigator in selection of subjects, manipulation of experimental variables, and control of extraneous variables, procedure of data collection and the type of statistical analyses to be used to interpret the data.

Quasi- experimental, one group pre test post- test design without control group was selected as the research design for the study.

The schematic representation of the study design was as follows,

TABLE 1

Group	**Pre test (day 1)**	**Intervention (day 1)**	**Post test (day 7)**
Experimental group	O_1	X	O_2

Key:

01: Assessment of knowledge of primigravida mothers by Pre-test. X: Structured teaching programme on breastfeeding problems.

02: Assessment of knowledge of primigravida mothers by post -test.

A structured knowledge questionnaire was administered to primigravida mothers on day one, following that a structured teaching programme was adminisrered. Post- test was conducted on day seven to assess the effectiveness of structured teaching programme.

VARIABLES IN THE STUDY

A variable is a phenomena or characteristics or attributes under a study. Variables are the measurable characteristics of a concept and consist of a logical group of attributes.

INDEPENDENT VARIABLE

According to Treece and Treece (1988) the independent variable is the one variable that stands alone and not dependent on any other. It is the cause of the action. In present study it refers to the structured teaching programme on breastfeeding problems.

DEPENDENT VARIABLE

Dependent variables are the effect of the action of the independent variable and cannot exist by itself.

In present study it refers to the knowledge of primigravida mothers regarding breastfeeding problems.

DEMOGRAPHIC VARIABLES

An uncontrolled variable that greatly influences the results of the study is called as the demographic variables.

Demographic variables selected for this study are age, education, religion, type of family, occupation, income of the family, place of residence and source of previous knowledge regarding breastfeeding problems.

RESEARCH SETTINGS

The setting is the physical location and conditions in which data collection takes place. This study was conducted at Meenakshi hospital , dindigul. Meenakshi Hospital was selected for the study on the basis of geographical proximity, feasibility of conducting study and availability of the samples.

POPULATION

A population is the entire aggregation of cases in which a researcher is interested. It is sometimes referred to as the target population, is the entire set of persons (or elements) who meet the sampling criteria. (Nancy Burns 2007)

In this study the population comprises of all primigravida mothers.

SAMPLE AND SAMPLING TECHNIQUE

Sample:

A sample is a subset or portion of the population that has been selected to represent the population of interest.

A sample of 60 primigravida mothers who met the inclusion criteria were selected from the target population for this study.

Sampling Technique:

Sampling is a process of selecting a group of people, events or position of the population to represent the entire population.

Non-probability purposive sampling technique was used to select 60 primigravida mothers from Meenakshi Hospital ,Dindigul as the sample for this study.

CRITERIA FOR SELECTING THE SAMPLE

Sampling criteria can also be referred as the eligibility criteria, which includes the list of characteristics essential for eligibility or membership in the target population. Sampling criteria for a study consist of inclusion or exclusion sampling criteria or both.

INCLUSION CRITERIA

- Primigravida mothers who are willing to participate in study
- Primigravida mothers in third trimester
- Primigravida mothers who are available during the period of data collection

EXCLUSION CRITERIA

- Pimigravida mothers in first and second trimester.

PREPARATION OF THE BLUE PRINT:

A blue print was prepared prior to the construction of structured knowledge questionnaire. It depicts the distribution of items according to the content areas. The structured questionnaire includes three domains; Knowledge, comprehension and application.

According to the content area in blue print, adequate number of items was prepared in each area. Then the prepared items were subjected to content validation, pre-testing and estimation of reliability.

BLUE PRINT OF DISTRIBUTION OF ITEM

The blue print of the structured questionnaire assessing knowledge regarding common breast feeding problems is given below:

TABLE: 2

Sl no	AREAS	Knowledge		Comprehension		Application		Total no. of question	Percentage (%)
		Item no.	No. of item	Item no.	No. of item	Item no.	No. of item		
1	Physiological changes of breast during antenatal and postnatal period	1, 2,3, 4,5,	05	6,7,8,	03	-	-	8	20
2	Flat and inverted nipples	9,10,11 12,13	04	15	01	16	01	07	17.5
3	Sore and cracked nipple	17,18,19 21,23	05	20,24	02	22,	01	07	17.5
4	Breast engorgement	25, 26,27	03	28	01	29	01	05	12.5
5	Mastitis and abscess	30,31,32	03	33,35	02	34	01	06	13.3
6.	Leakage of milk	36,37	02	-	-	38	01	03	6.6
8	Insufficient milk/ poor milk supply	39	01	-	-	40	01	03	6.6
	TOTAL	25		09		06		40	100
	PERCENTAGE	62.5%		22.5%		15%		100%	

SELECTION AND DEVELOPMENT OF TOOL

Data collection tools are the procedures or the instruments used by the researcher to observe or measure key variables in the research (Polit and Hungler 1999). The tool acts as the best instruments to assess and collect data from the respondents of the study.

Structured knowledge questionnaire was an appropriate and effective method to evaluate the knowledge of the primigravida mothers. The main strengths behind development of the tool are review of research and non- research materials on relevant topics regarding breastfeeding problems, consultation with the subject experts, from discussion with colleagues and investigators' experience in clinical settings and books.

The following steps were undertaken for the preparation of the final tool:

DESCRIPTION OF TOOL

Data collection tool consist of two aspects with following items:

PART I: It includes the items of selected demographic characteristics of primigravida mothers comprising of age, education, religion, type of family, occupation, income of the family, place of residence and source of previous knowledge regarding breastfeeding problems.

PART II: It includes 40 questions of which are divided into different sections such as

Section A: There are 8 questions regarding Physiological changes of breast during antenatal and postnatal period.

Section B: It deals with selected breastfeeding problems such as 8 items related to Flat and Inverted nipples, 8 items related to Sore and Cracked nipples, 5 items related to

Breast engorgement, 6 items related to Mastitis and Abscess, 3 items related to Leakage of milk, 2 items related to Insufficient milk/ Poor supply.

The knowledge regarding breastfeeding problems was measured in terms of knowledge score. Each correct answer was given as score of one mark and wrong answer or unanswered was given as a score of zero. The maximum score was 40. To interpret level of knowledge the scores were distributed as follows;

To interpret level of knowledge the scores were distributed as follows:

- Inadequate knowledge < 50 %
- Moderately adequate knowledge 50 – 75%
- Adequate knowledge > 75 %

DEVELOPMENT OF CRITERIA CHECKLIST FOR THE TOOL

Criteria checklist was developed to validate the tool regarding accuracy, relevance and appropriateness of the content.

CONTENT VALIDITY OF THE TOOL

Validity refers to the degree to which an instrument measures what it is supposed to measure. Content validity refers to degree to which the items in an instrument adequately represent the universe of content. The prepared tool along with the objectives, blue print and criterion checklist were submitted to seven experts in the field of nursing who has specialization in Obstetrics and Gynecology for establishing the content validity. Their suggestions are taken into consideration and modifications are incorporated in the final preparation of the tool.

Pre-testing of the tool

Pre-testing is the processing of measuring the effectiveness of an instrument. The purpose is to reveal problems related to answering, completing and retaining the instrument and to point out weakness in the administration, organization and distribution of the instrument.

Pre-testing of the structured knowledge questionnaire was done to check the clarity of items, their feasibility and practicability. The prepared structured questionnaire was administered to ten primigravida mothers. The sample chosen were similar in characteristics to those of the population under study. Pre-testing was conducted in Meenakshi Hospital ,Dindigul.

The investigator found that the language of tool was simple and practicable; the average time taken to complete the questionnaire for each sample was 40-45 minutes. The tool consisted of 40 questions and then based on the pre-testing suggestions given by the experts; modification and rearrangement of few items were done.

RELIABILITY

Reliability of research instrument was defined as the extent to which the instrument yields the same results on repeated measures (Polit and Hungler)

The reliability of a measuring tool can be assessed in the aspects of stability, internal consistency, and equivalence depending on the nature of the instrument and aspects of the reliability concept.

The method adopted for the present study was split-half method to measure the homogeneity of the tool. The test was first divided into two equivalent halves and correlation for the half test was found using Karl Pearson’s correlation coefficient

formula. The reliability of the tool is calculated by spearman-Brown Prophecy formula. The reliability of coefficient of the knowledge tool was found to be 0.74.The tool was found to be statistically reliable for the main study.

ETHICAL CONSIDERATION

In this study, the ethical issue was taken into consideration. There were no ethical issues confronted while conducting the study. Prior permission was obtained from the Medical Director and Chief Nurse of Meenakshi Hospital ,Dindigul. Also prior permission was taken from the ethical committee members of Meenakshi Hospital. Consent was obtained from the subjects before data collection and was assured that the confidentiality of data will be maintained. The subjects were also informed that their participation was purely on voluntary basis and they can withdraw from the study any time.

DEVELOPMENT OF STRUCTURED TEACHING PROGRAMME

Structured teaching plan acts as a guide for the teacher because it helps cover the topics comprehensively with proper sequence of points and without missing any aspect.

The steps to prepare teaching plan were:

- Literature review.
- Framing the outline of the content.
- Preparation and organization of content.
- Deciding the method of instruction and AV aids.

- Preparation of the final draft.
- Editing the teaching plan and evaluating the teaching plan.

1. Literature review:

An extensive literature review was undertaken from research and non- research materials, internet sources, and journals etc., regarding breastfeeding problems.

2. Framing the outline of the content:

The outline of the teaching plan was framed which included setting of the general and specific objectives regarding breastfeeding problems , specifying the date, time, place and size of the group, number of sessions and duration of sessions.

3. Preparation and organization of the content:

Content of the structured teaching programme on breastfeeding problems was prepared and organized under various headings according to the specific objectives. Structured teaching programme was organized under various headings such as Introduction, Anatomy and physiology of the breast, Breast changes during pregnancy, Physiology of lactation, Common breastfeeding problems and their management Flat nipple, Inverted nipple, Sore and cracked nipple, Breast engorgement, Mastitis, Breast abscess, Leakage, In sufficient supply or poor supply

4. Deciding the method of instruction and AV aids:

The method of instruction adopted was lecture cum discussion method along with PowerPoint Presentation.

5. Preparation of the final draft of structured teaching programme:

A general and specific objective of the teaching plan was given in the beginning of the structured teaching programme. Final draft of structured teaching programme was organized under various headings such as Introduction ,Anatomy and physiology of the breast, Breast changes during pregnancy, Physiology of lactation, Common breastfeeding problems such as Flat nipple, Inverted nipple, Sore and cracked nipple, Breast engorgement, Mastitis and their management.

CONTENT VALIDITY OF THE STRUCTURED TEACHING PROGRAMME

Content validation of the structured teaching programme was ascertained in consultation with the experts in the field of nursing specialized in Obstetrics and Gynecological Nursing. Suggestions and recommendations of the experts were considered to modify the content of structured teaching programme.

PRE-TESTING OF THE STRUCTURED TEACHING PROGRAMME

Pre-testing of the validated structured teaching programme was done at Meenakshi Hospital, Dindigul to determine the feasibility, clarity and ambiguity, and time taken to complete the teaching. The time taken by the researcher to complete the teaching programme was 50-60 minutes. The researcher did not face any problems during the administration of the structured teaching programme. Structured teaching programme was found to be feasible with regard to time, simplicity and clarity.

PILOT STUDY

Pilot study is a small scale version of the proposed study conducted to refine the methodology. It is developed similar to the proposed study, using similar subjects, the

same setting, the same treatment, the same data collection and the same analysis technique.

The purpose of the pilot study was to find out the feasibility of the study, clarity of the language of the tools, to assess the effectiveness of structured teaching programme and to finalize the plan for analysis.

Keeping in mind the ethical aspect of research, the data was collected after obtaining the informed consent of the sample. The mothers were assured the anonymity and confidentiality of information provided by them.

The researcher collected the data from the subjects. The data collection period extended from 20th October ’12 to 27th October ’12Ten primigravida mothers were selected using non probability purposive sampling technique. The subjects for the study possessed the same characteristics as that of the sample for the final study, but were not included in the main study. Prior to the study permission was obtained from the concerned authority. The selected subjects were informed of the purpose of the study and consent was obtained. Assessment of knowledge was done by using structured knowledge questionnaire. Administration of a structured teaching programme was done to the subjects of the study. Post-test was conducted using the same structured knowledge questionnaire on the seventh day of pre-test after the administration of structured teaching programme. The time taken to complete one pre-test or post-test was 40-45 minutes. The collected data were analyzed using descriptive and inferential statistics

After conducting the pilot study, it was found that the study was feasible. The concerned authority and the sample are found to be cooperative, the questionnaire and

structured teaching programme were relevant and the time and cost of the study was within the limit.

DATA COLLECTION PROCESS FOR THE MAIN STUDY

Collection of data is the first step in the statistical treatment of a problem. It is the process of acquiring the subjects and collecting the data for the study. The actual steps of collecting the data are specific to each study and depend on the research design and measurement techniques.

Before collecting the data, permission was obtained from the medical superintendent, chief nurse and the respected ward-in charges of Meenakshi Hospital, Dindigul. Keeping in mind the ethical aspect of research, the data was collected after obtaining the informed consent of the sample. The mothers were assured the anonymity and confidentiality of information provided by them. The researcher collected the data from the subjects. The data collection period extended from 10th November 2012 to 19th December 2012. For data collection, pre-test was conducted and followed by administration of structured teaching programme using A.V aids. The duration of the session was 30 minutes. Post –test was administered using the same structured knowledge questionnaire to evaluate the effectiveness of structured teaching programme on breastfeeding problems.

The participant and the family members appreciated the structured teaching programme. The data collection process was terminated by thanking the respondents for their co-operation and patience.

PLAN FOR DATA ANALYSIS

Analysis is a systematic organization and synthesis of research data and testing of research hypothesis using those data.

The data obtained will be analyzed on the basis of the objectives of the study using both descriptive and inferential statistics. Inferential statistics which are based on laws of probability provide a means of drawing conclusion about the population from which data was obtained for the study. To compute the data, the investigator prepares a master score sheet.

The description of the subjects with respect to demographic variables would be presented in terms of frequency and percentage. The knowledge of the primigravida mothers regarding breastfeeding problems before and after a structured teaching practice will be evaluated by using Mean, Mean percentage, Median and Standard deviation.

The significant difference between the mean pre-test and post-test knowledge score will be calculated by using student's paired t test. Chi square [χ 2] will be used for measuring association between selected demographic variables and knowledge level of primigravida mothers regarding the breastfeeding problems. The result will be statistically significant whenever $P \leq 0.05$ level of significance. The results obtained by calculating the data was are represented in the form of tables and the graphs.

SUMMARY

A quasi-experimental with evaluative research approach was adopted in order to evaluate a study to assess the effectiveness of structured teaching programme on knowledge of primigravida mothers regarding breast feeding problems in Meenakshi Hospital, Dindigul. Closed-ended structured questionnaire was used to assess the

knowledge regarding breastfeeding problems. Validity and reliability of the questionnaire and structured teaching programme was tested. Pilot study was conducted to find out the feasibility of the study. Data was collected from the sample after obtaining permission from the concerned authority. Collected data will be analyzed using descriptive and inferential statistics and will be presented in the form of tables, graphs and diagrams in the following chapter.

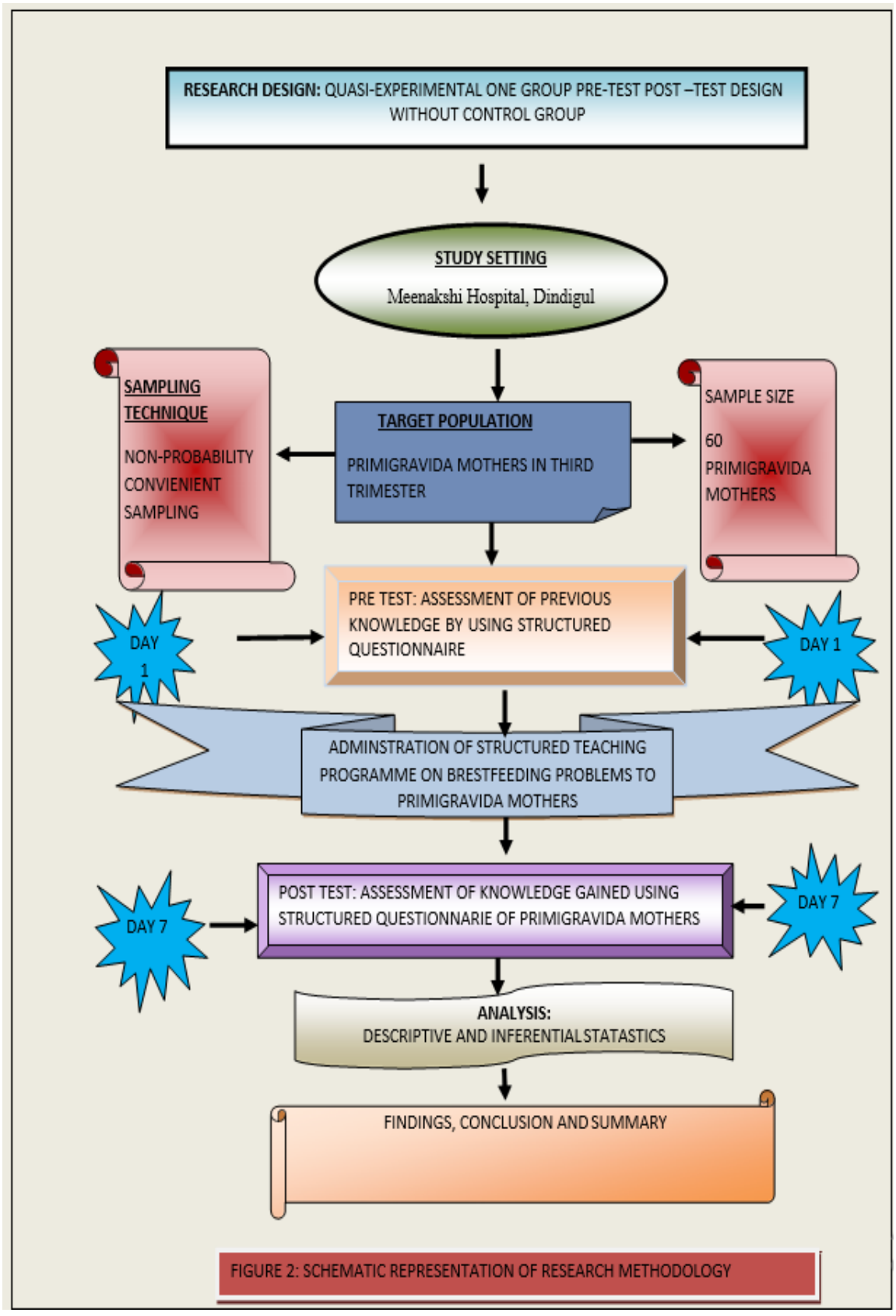

FIGURE 2: SCHEMATIC REPRESENTATION OF RESEARCH METHODOLOGY

CHAPTER – IV

DATA ANALYSIS AND INTERPRETATION

CHAPTER IV

DATA ANALYSIS AND INTREPRETATION

The chapter deals with the analysis and interpretation of data collected from primigravida mothers regarding breastfeeding problems in selected hospitals, Dindigul. The analysis and interpretation was based on the data collected by using structured questionnaire. The data was organized, tabulated, analyzed and interpreted by using descriptive and inferential statistics based on the stated objectives. Statistical analysis is a method of rendering quantitative information into meaningful and intelligible form of research data. It is the process of organizing and synthesizing data so as to answer research questions and to test the hypothesis.

Organisation of findings

The collected data were edited, tabulated, analyzed, interpreted and findings obtained were presented in the form of tables and diagrams which were represented under the following sections.

Section I: Findings related to demographic data of the primigravida mothers. Frequency and percentage distribution of primigravida mothers according to demographic variables such as age, religion, educational status, occupational status, family income, dietary pattern, type of family, period of gestation.

Section II: Findings related to assessment of knowledge of primigravida mothers regarding breastfeeding problems by using structured knowledge questionnaire. Frequency and percentage distribution of knowledge of primigravida mothers regarding breast feeding problems.

Mean standard deviation and mean percentage of knowledge of primigravida mothers regarding breastfeeding problems.

Comparison of pre-test and post-test knowledge score of primigravida mothers.

Section III:

Findings related to effectiveness of the structured teaching programme by comparing the mean pre-test & mean post-test knowledge scores

Section IV:

Association of post-test knowledge scores of primigravida mothers with the selected demographic variables.

SECTION – I

DEMOGRAPHIC PROFILE OF PRIMIGRAVIDA MOTHERS

TABLE –1: Distribution of respondents according to their age (years)

n=60

Age of mother (yrs)	No. of primigravida mothers	Percent
21-25	35	58.3
26-30	18	30.0
>30	7	11.7
Total	60	100.0

Table – 1 shows the distribution of respondents according to their age. It can be seen from the table that majority of the respondents i.e. 35 (58.3%) are in the age group of 21-25 years, 18 (30%) are in the age group of 26-30 years and 7(11.7%) above 30 years. The above data is represented in cylindrical diagram in the Figure-3.

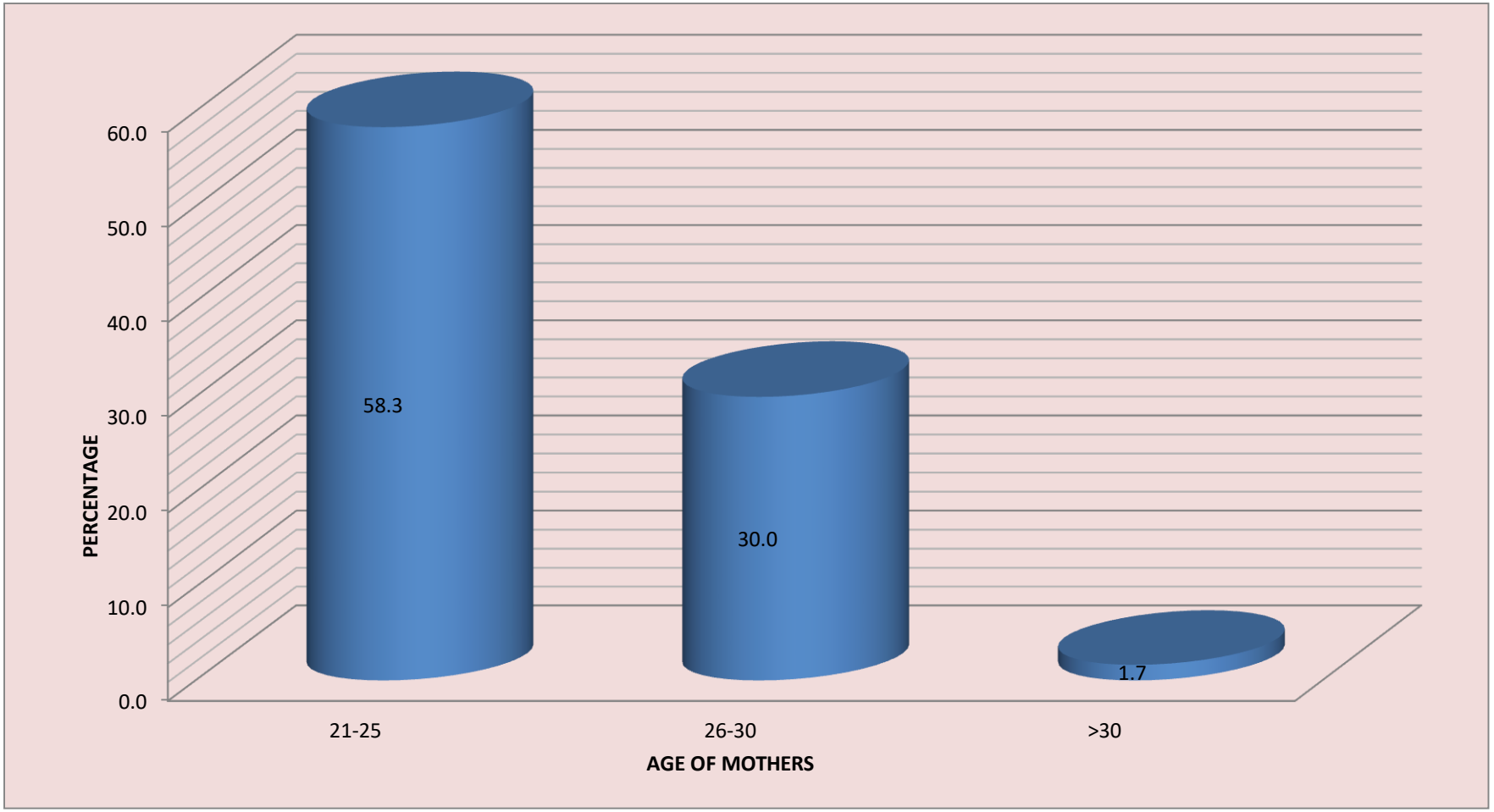

FIGURE-3: CYLINDRICAL DIAGRAM SHOWING DISTRIBUTION OF RESPONDENTS ACCORDING TO THEIR AGE

TABLE – 2: Distribution of respondents according to religion

n=60

Religion	No. of primigravida mothers	Percent
Hindu	35	58.3
Muslim	9	15.0
Christian	16	26.7
Total	60	100.0

Table-2 shows the distribution of respondents according the religion. It can be seen in the table that majority of the respondent 35(58.3%) were Hindus, 16 of the respondents (26.7%) were Christians, 9 of the respondents (15%) were Muslims. This shows the demographic distribution according to the religion in the region. This distribution is shown in pie diagram in figure-4.

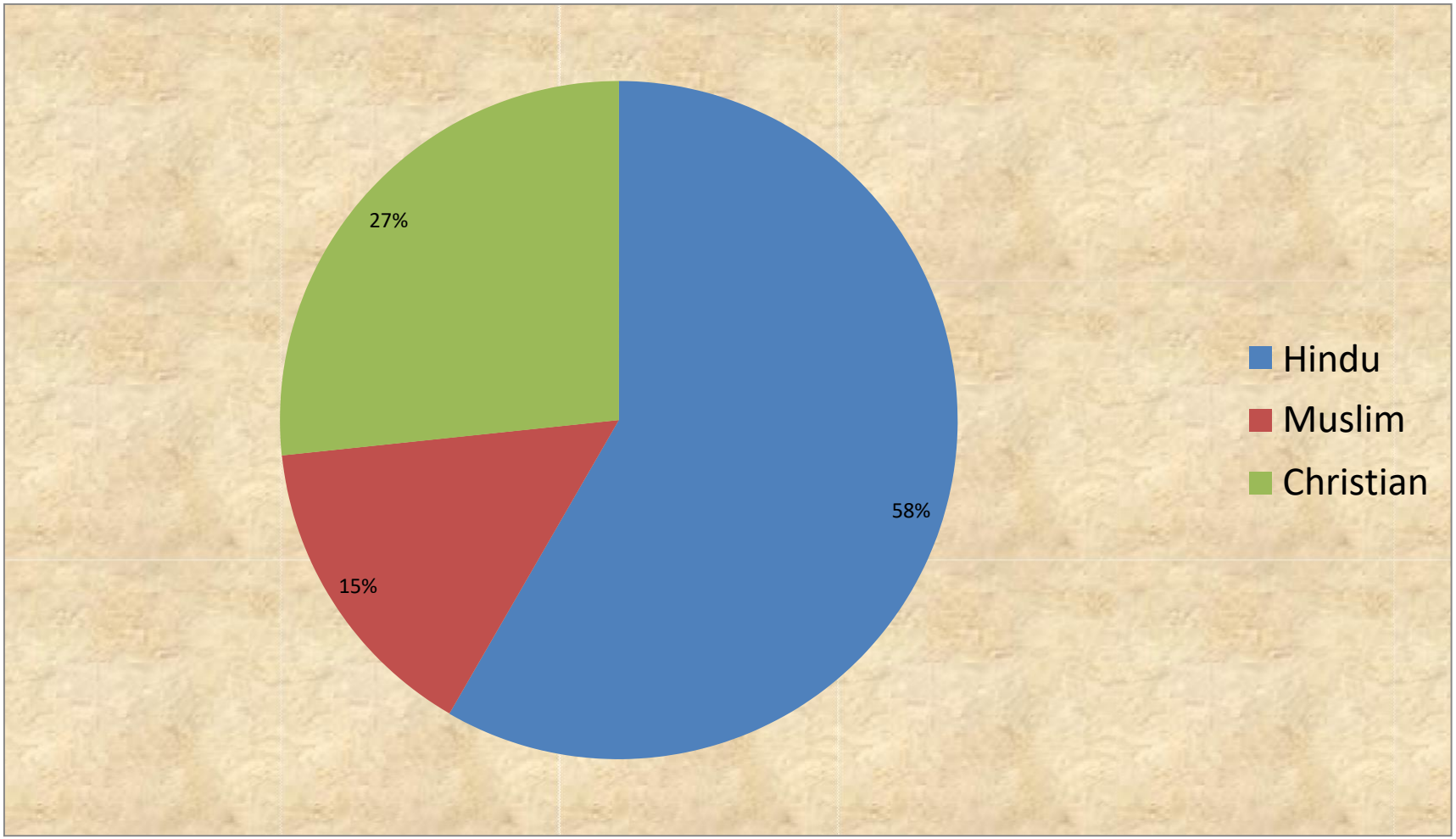

FIGURE-4: PIE DIAGRAM SHOWING DISTRIBUTION OF RESPONDENTS ACCORDING TO THEIR RELIGION

TABLE– 3: Distribution of respondents according to educational status.

n=60

Educational status	No. of primigrada mothers	Percent
Undergraduate	11	18.3
Graduate	30	50.0
Post-graduate	19	31.7
Total	60	100.0

In Table -3 the distribution of respondents according to their educational status is given. It was observed that out of 60 primigravida mother's majority of them 30(50.0%) have done graduations, 19 (31.7%) of them have done post- graduations and 11(18.3%) have done undergraduates. The above distribution is given in pyramid diagram in the Fig: 5

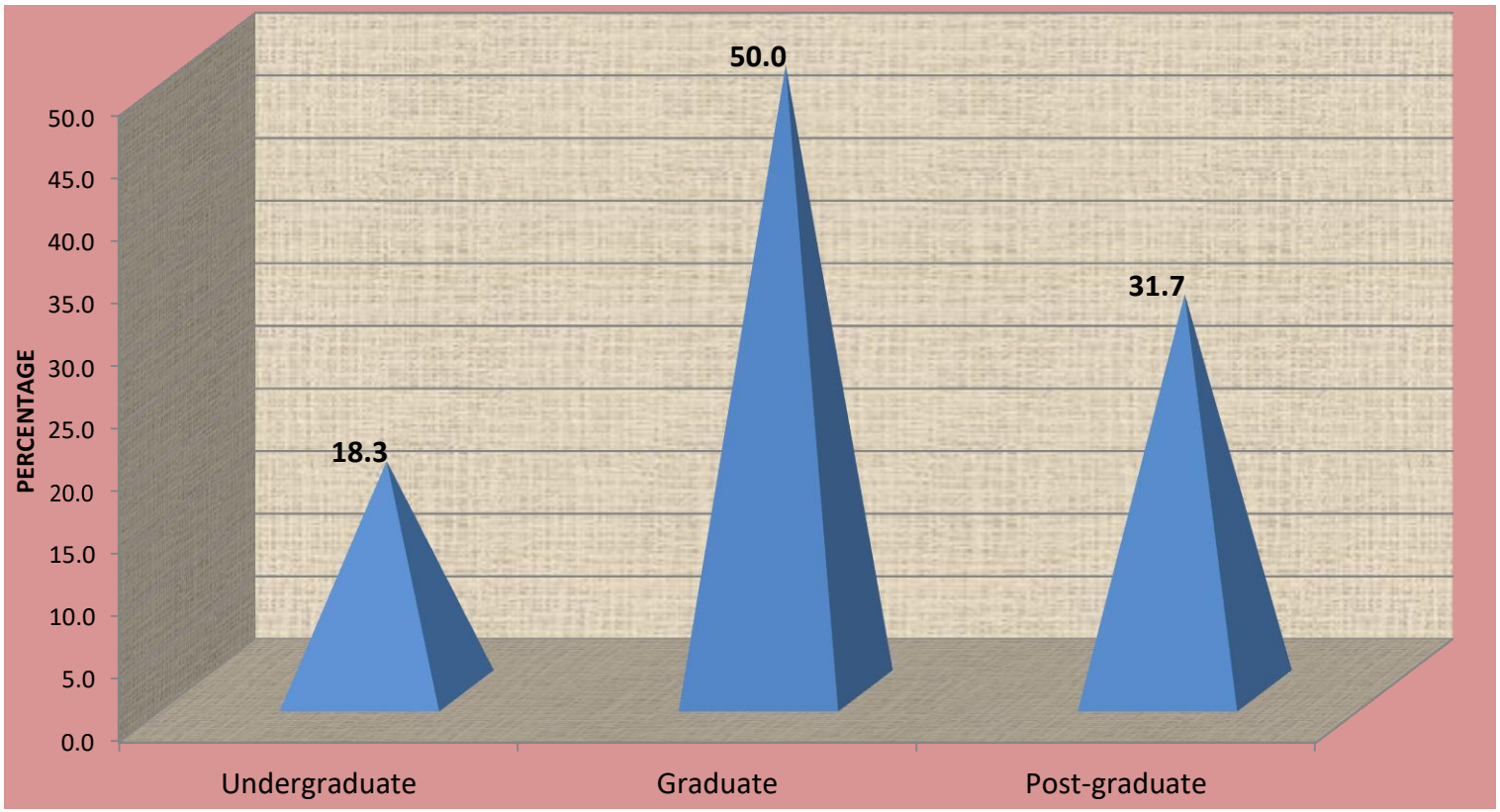

FIGURE-5: PYRAMID DIAGRAM SHOWING DISTRIBUTION OF RESPONDENTS ACCORDING TO THEIR EDUCATIONAL STATUS

TABLE – 4 : Distribution of respondents according to occupation

n=60

Occupation	No. of primigravida mothers	Percent
Private employment	40	66.7
Home maker	17	28.3
Government employment	2	3.3
Others	1	1.7
Total	60	100.0

In Table-4 shows the distribution of the respondents according to their occupational status. It was found that out of 60 primigravida mothers majority of them 40(66.7%) were private employee, 17(28.3%) were Home maker, 2(3.3%) were government employee and 1(1.7%) were included in others. This distribution is shown in pyramidal diagram in fig 6

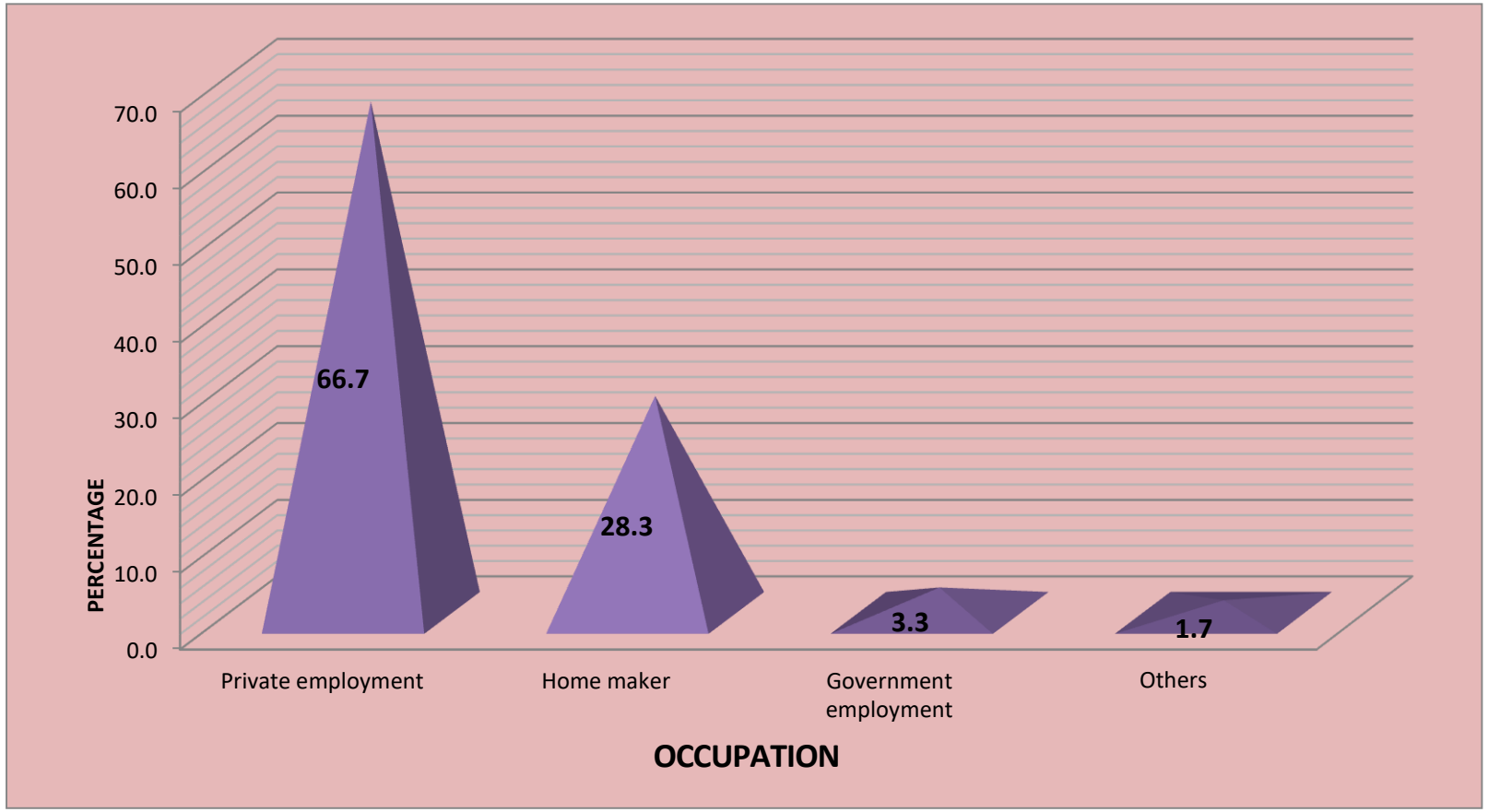

FIGURE –6: PYRAMID DIAGRAM SH OWING DISTRIBUTION OF RESPONDENTS ACCORDING TO OCCUPATION

TABLE –5: Distribution of respondents according to family income

n=60

Family income/ month	No. of primigrada mothers	Percent
≤ 25,000	7	11.7
25,001-50,000	22	36.7
50,001-75,000	22	36.7
75,001-100,000	9	15.0
Total	60	100.0

In Table -5 shows the distribution of the respondents according to their family income. It can be seen that majority of the respondents 44(73.4%) were having a family income between 25000-75000 rupees, 9(15%) were having a family income between 75,001-100000 rupees and 7(11.7%) were having family income less than 25,000. This shows the demographic distribution of respondents according to their family income in the region. The above distribution is given in bar diagram in the Figure-7

FIGURE –7: BAR DIAGRAM SHOWING DISTRIBUTION OF RESPONDENTS ACCORDING TO FAMILY INCOME

TABLE – 6: Distribution of respondents according to type of family.

n=60

Type of family	No. of primigravidda mothers	Percent
Nuclear	56	93.3
Joint	4	6.7
Total	60	100.0

In Table -6 shows the distribution of the respondents according to their type of family. It can be seen that majority of the respondents 56(93.3%) were living in nuclear family and 4(6.7%) were living in joint family. This shows the demographic distribution of respondents according to type of the family in the region. This distribution is shown in pie diagram in figure-8.

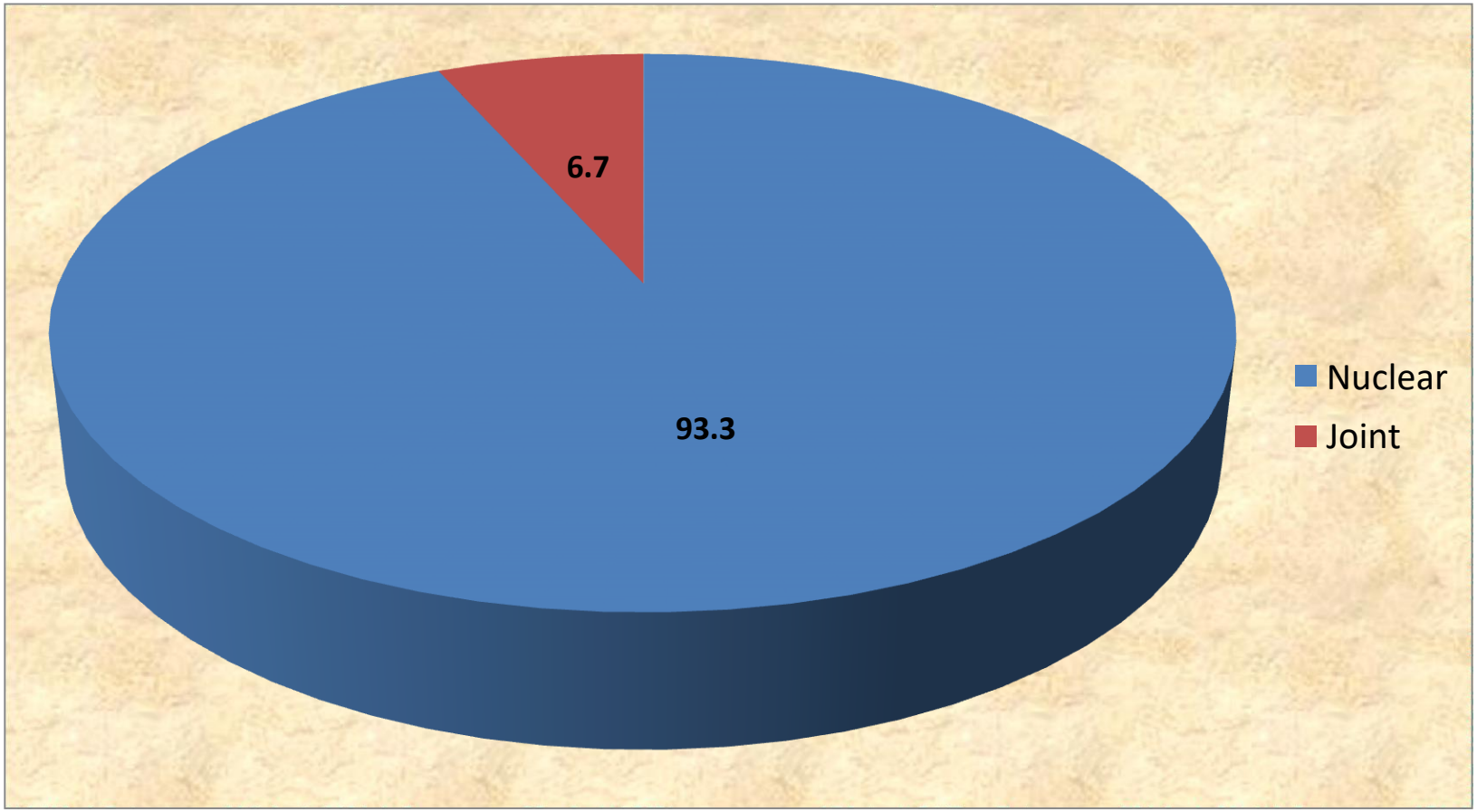

FIGURE –8: PIE DIAGRAM SHOWING DISTRIBUTION OF RESPONDENTS ACCORDING TO TYPE OF FAMILY

TABLE – 7: Distribution of respondents according dietary pattern.

n=60

Dietary pattern	No. of primigrada mothers	Percent
Vegetarian	9	15.0
Mixed	51	85.0
Total	60	100.0

In Table -7 shows the distribution of the respondents according to their dietary pattern. It can be seen that majority of the respondents 51(85.0%) were mixed and 9(15.0%) were having a vegetarian diet. This shows the demographic distribution of respondents according to dietary pattern in the region. This distribution is shown in conical diagram in figure-9.

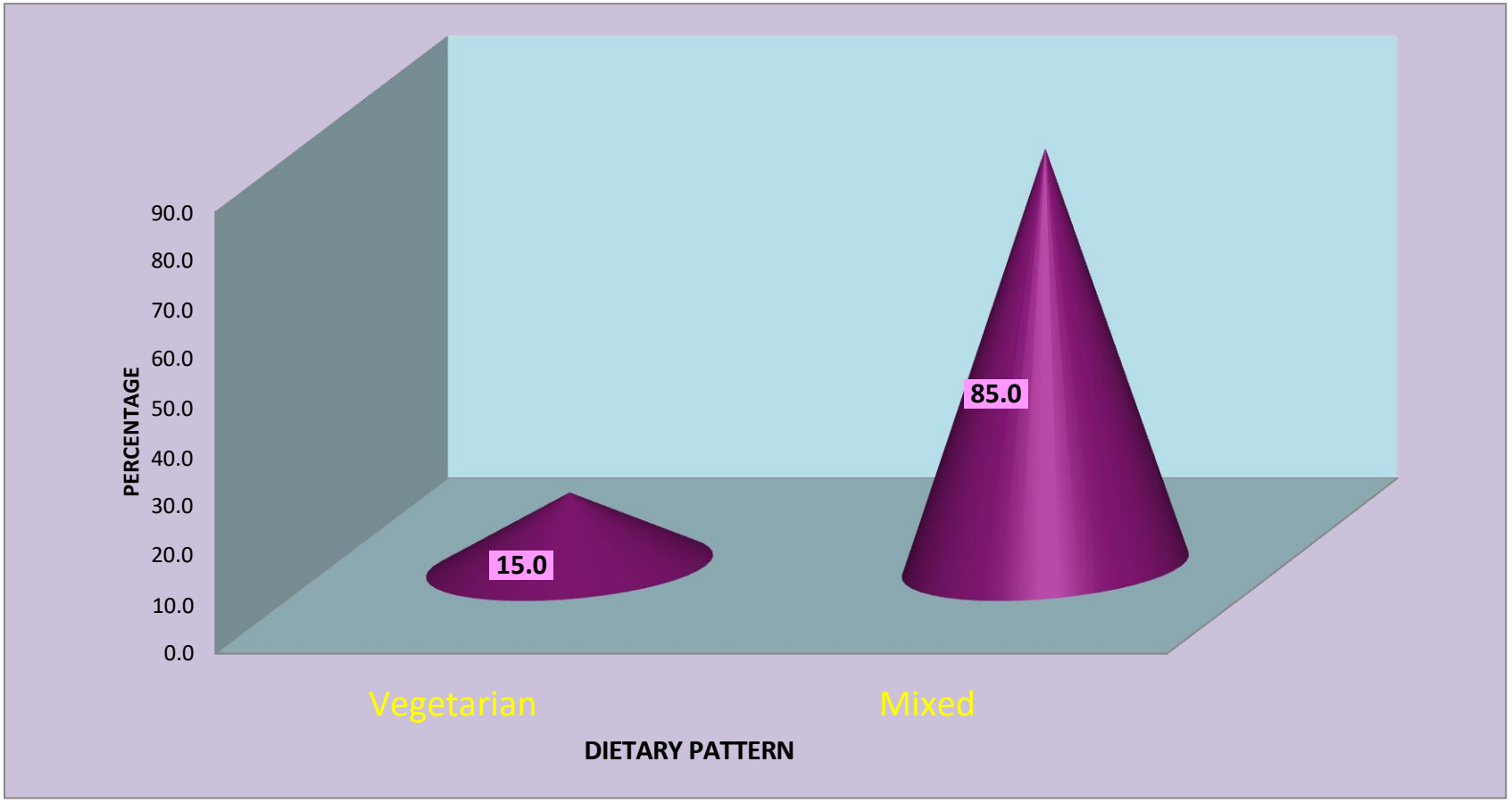

FIGURE –9: CONICAL DIAGRAM SHOWING DISTRIBUTION OF RESPONDENTS ACCORDING TO DIETARY PATTERN

TABLE – 8: Distribution of respondents according to period of gestation

n=60

Period of gestation	No. of primigrada mothers	Percent
≤ 30	13	21.7
31-35	27	45.0
36-40	20	33.3
Total	60	100.0

In Table no -8 shows the distribution of the respondents according to their period of gestation. It can be seen that majority of the respondents 27(45%) were in the gestational week between 31-35 weeks, 20 of the respondents (33.3%) were in the gestational week 36-40 and 13(21.7%) were in the gestational week ≤ 30weeks. This shows the demographic distribution of respondents according to period of gestation in the region.

SECTION II

Assessment of knowledge of primigravida mothers regarding breastfeeding problems before and after the implementation of structured teaching programme.

For the purpose of analysis, it was assumed that the respondent who had the mean pre-test knowledge score of <50% was considered as having an inadequate knowledge, respondents whose score was between 50-75% were considered as having moderately adequate knowledge and respondents who scored >75% were considered as having adequate knowledge level breastfeeding problems.

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TABLE -9 Distributions of respondents according to their pre- test knowledge scores

n=60

Area wise Pre-test level knowledge score	Inadequate		Moderately adequate		Adequate		Total
	No. of primigravida mothers	Percent	No. of primigravida mothers	Percent	No. of primigravida mothers	Percent	
Physiological changes of breast during antenatal and postnat	21	35.0	30	50.0	9	15.0	60
Flat and inverted nipples	49	81.7	7	11.7	4	6.7	60
Sore and cracked nipple	58	96.7	2	3.3		0.0	60
Breast engorgement	51	85.0	9	15.0		0.0	60
Mastitis and abscess	45	75.0	8	13.3	7	11.7	60
Leakage of milk	22	36.7	24	40.0	14	23.3	60
Insufficient milk/ poor supply	55	91.7		0.0	5	8.3	60
Overall knowledge score	54	90.0	6	10.0		0.0	60

Table-9 shows the distribution of the respondent according to pre- test knowledge scores of primigravida mothers regarding breastfeeding problems. It can be seen by the table that 54 of the respondents (90%) had overall inadequate knowledge scores compared to 6 of the respondents (10.0%) who had moderately adequate knowledge regarding breastfeeding problems. It can be inferred from the table that majority of the mothers had inadequate knowledge about the breastfeeding problems.

TABLE -10 Distributions of respondents according to their post-test knowledge scores

n=60

Area wise Post-test level knowledge score	Inadequate		Moderately adequate		Adequate		Total
	No. of primigravida mothers	Percent	No. of primigravida mothers	Percent	No. of primigravida mothers	Percent	
Physiological changes of breast during antenatal and postnat		0.0	7	11.7	53	88.3	60
Flat and inverted nipples	6	10.0	35	58.3	19	31.7	60
Sore and cracked nipple	14	23.3	35	58.3	11	18.3	60
Breast engorgement	3	5.0	29	48.3	28	46.7	60
Mastitis and abscess	2	3.3	4	6.7	54	90.0	60
Leakage of milk	2	3.3	6	10.0	52	86.7	60
Insufficient milk/ poor supply	17	28.3		0.0	43	71.7	60
Overall knowledge score		0.0	10	16.7	50	83.3	60

In table -10, shows the distribution of respondents according to their post test knowledge score regarding breastfeeding problems. It can be evident from the table, 10 of the respondents (16.7%) had moderately adequate knowledge and 50 of the respondents (83.3%) had adequate knowledge regarding breastfeeding problems following structured teaching programme, which shows that there is a significant improvement in the knowledge following structured teaching programme.

TABLE -11: Distribution of respondents according to the maximum score, Mean, Mean percentage and standard deviation for the area-wise pre-test knowledge scores

n=60

Area wise pre-test knowledge score	Max. score	Mean	SD	Mean%
Physiological changes of breast during antenatal and postnat	8	5.05	1.56	63.13
Flat and inverted nipples	8	3.10	1.55	38.75
Sore and cracked nipple	8	2.25	1.13	28.13
Breast engorgement	5	1.47	0.89	29.33
Mastitis and abscess	6	2.58	1.36	43.06
Leakage of milk	3	1.75	0.95	58.33
Insufficient milk/ poor supply	2	0.73	0.61	36.67
Overall knowledge score	40	16.93	3.76	42.33

The above table 11 shows the mean, mean percentage and standard deviation of pre test knowledge scores in various areas. The mean, mean percentage and SD in the area of physiological changes of breast during antenatal and postnatal period is 5.05, 63.13% and 1.56 respectively. The scores in the area of flat and inverted nipples are 3.10, 38.75 and 1.55, in the areas of sore and cracked nipple are 2.25, 28.13 and 1.13, in the area of breast engorgement are 1.47, 29.33, 0.89, in the area of mastitis and abscess the scores are 2.58, 43.06 and 1.36, in the area of leakage of milk the scores are 1.75, 58.33%, 0.95 and in the area of insufficient milk/ poor supply are 0.73,36.67%,0.61.The overall pre test mean, mean percentage and SD are 16.93, 42.33 and 3.76 respectively

TABLE 12: Distribution of respondents according to the Maximum score, Mean, Mean percentage and Standard Deviation for the area-wise post-test knowledge scores

Area wise post- test knowledge score	Max. score	Mean	SD	Mean%
Physiological changes of breast during antenatal and postnat	8	7.38	0.69	92.29
Flat and inverted nipples	8	5.93	1.13	74.17
Sore and cracked nipple	8	5.42	1.12	67.71
Breast engorgement	5	3.70	0.94	74.00
Mastitis and abscess	6	5.27	0.73	87.78
Leakage of milk	3	2.82	0.54	93.89
Insufficient milk/ poor supply	2	1.70	0.50	85.00
Overall knowledge score	40	32.22	2.81	80.54

The above table 12 shows the mean, mean percentage and standard deviation of post test knowledge scores in various aspects. The mean, mean percentage and SD in the area of physiological changes of breast during antenatal and postnatal period is 7.38, 92.29% and 0.69 respectively. The scores in the area of flat and inverted nipple are 5.93, 74.17% and 1.13, in the area of sore and cracked nipple are 5.42, 67.71% and 1.12, in the area of breast engorgement are 5.27, 87.78% and 0.73, in the area of mastitis and abscess the scores are 5.27, 87.78% and 0.73, in the area of leakage of milk 2.28, 93.89 and 0.54 and in the area of insufficient milk/ poor supply 1.70, 85% and 0.50. The overall post test mean, mean percentage and SD are 32.22, 80.54 and 2.81 respectively.

SECTION III

TABLE 13: Overall Comparison of the pre-test and post-test knowledge score with mean, median, standard deviation and range

n=60

	Range	**Median**	**Mean**	**SD**	**Mean %**
Overall pre-test scores	7-28	18	16.93	3.76	42.33
Overall post-test scores	24-37	33	32.22	2.81	80.54

Table -13 shows the overall comparison of pre-test and post-test knowledge score with mean, median, SD and range.

It can be observed from the table, in the pre-test the range was from 7-28, median was 18 and overall mean pre-test score was 16.93 with a SD of 3.76 indicating a homogeneous distribution of pre-test score.

In the post-test the range was 24-37, with a median of 33, the mean post-test score was 32.22 with the SD of 2.81 indicating a significant improvement in the knowledge score after the administration of structured teaching programme.

Table No 14: Area wise comparison of mean, SD and mean% of pre-test and post-test knowledge scores of primigravida mothers regarding breastfeeding problems

n=60

Area wise knowledge score	Pre-test			Post-test			Percentage of enhancement
	Mean	SD	Mean %	Mean	SD	Mean %	
Physiological changes of breast during antenatal and postnatal	5.05	1.56	63.13	7.38	0.69	92.29	46.20
Flat and inverted nipples	3.10	1.55	38.75	5.93	1.13	74.17	91.40
Sore and cracked nipple	2.25	1.13	28.13	5.42	1.12	67.71	140.74
Breast engorgement	1.47	0.89	29.33	3.70	0.94	74.00	152.27
Mastitis and abscess	2.58	1.36	43.06	5.27	0.73	87.78	103.87
Leakage of milk	1.75	0.95	58.33	2.82	0.54	93.89	60.95
Insufficient milk/ poor supply	0.73	0.61	36.67	1.70	0.50	85.00	131.82
Overall knowledge score	16.93	3.76	42.33	32.22	2.81	80.54	90.26

Table 14 shows the distribution of respondents according to area wise distribution of mean, mean % and SD of pre-test and post-test score of primigravida mothers regarding breastfeeding problems.

It can be seen from the table that the area of Physiological changes of breast during antenatal and postnatal, mean pre-test score was 5.05 with SD of 1.56 and mean % of 63.3%. Whereas post-test mean score was 7.38 with SD of 0.69 and mean % of 92.29. This shows an enhancement of knowledge score in the area of physiological changes of breast during antenatal and postnatal period following structured teaching programme.

In the area of flat and inverted nipples the mean pre-test score was 3.10 with SD of 1.55 and mean% score of 38.75% where as mean post- test score in the same area following a structured teaching programme was 5.93 with SD of 1.13 and mean% of 74.17 showing a 91.40% enhancement of knowledge following structured teaching programme.

In the area of sore and cracked nipples the mean pre-test score was 2.25 with SD of 1.13 and a mean% of 28.13%. The post-test mean score in the same area is 5.42 with SD of 1.12 and mean% of 67.71 showing an enhancement of 140.74% following a structured teaching programme.

In the area of Breast engorgement, the mean pre-test score was 1.47 with SD of 0.89 and mean% of 29.33.where as post-test mean score in the same area is 3.70 with SD 0.94 and mean% of 74.0% indicating a 152.27% of enhancement of knowledge following a structured teaching programme.

In the area of Mastitis and abscess, the mean pre-test score was 2.58 with SD of 1.36 and mean% of 43.06% where as post-test mean score in the same area is 5.27 with SD 0.73 and mean% of 87.78% indicating a 103.87% of enhancement of knowledge following a structured teaching programme

In the area of Leakage of milk, the mean pre-test score was 1.75 with SD of 0.95 and mean% of 58.3% .Where as post-test mean score in the same area is 2.82 with SD 0.54 and mean% of 93.89% indicating a 60.95% of enhancement of knowledge following a structured teaching programme.

In the area of Insufficient milk/poor supply of milk, the mean pre- test score was 0.73 with SD of 0.61 and mean% of 36.6% .Whereas post- test mean score in the same area is 1.70 with SD 0.50 and mean% of 85.00% indicating a 131.82% of enhancement of knowledge following a structured teaching programme

The overall mean pre-test score was 16.93 with SD of 3.76 and mean% 42.33% whereas the overall mean post-test score was 32.22 with a SD 2.81 and mean% 80.54% indicating overall enhancement of 90.26% in terms of knowledge score following structured teaching programme.

TABLE-15: Paired 'T' test showing the significant difference between pre-test and post- test scores of primigravida mothers

Area wise knowledge score	Pre-test		Post-test		t-value	P-value
	Mean	SD	Mean	SD		
Physiological changes of breast during antenatal and postnatal period	5.05	1.56	7.38	0.69	11.068	0.001
Flat and inverted nipples	3.10	1.55	5.93	1.13	13.071	0.001
Sore and cracked nipple	2.25	1.13	5.42	1.12	16.019	0.001
Breast engorgement	1.47	0.89	3.70	0.94	14.435	0.001
Mastitis and abscess	2.58	1.36	5.27	0.73	14.058	0.001
Leakage of milk	1.75	0.95	2.82	0.54	7.493	0.001
Insufficient milk/ poor supply	0.73	0.61	1.70	0.50	9.101	0.001

The above table shows the distribution of the pre-test and post-test scores of primigravida mothers and t-value.

A t test was conducted to find out the significant difference in the mean post-test and mean pre-test scores. It can be observed from the table in the components of physiological changes of breast during antenatal and postnatal period, the mean pre-test score was 5.05 with SD 1.56 and post- test mean score was 7.38 with SD 0.69. The observed t value was 11.068 which were more than the table value indicating a significant improvement in terms of knowledge following structured teaching programme.

In the area of flat and inverted nipples the mean pre-test score was 3.10 with SD of 1.55 and the mean post-test score was 5.93 with SD of 1.13. The t test conducted shows the observed value was 13.071 which was more than the table value indicating significant improvement in terms of knowledge following structured teaching programme in the area of flat and inverted nipples.

In the area of Sore and cracked nipple the mean pre-test score was 2.25 with SD of 1.13 where as mean post-test score was 5.42 with SD 1.12. The observed t value of 16.019 is more than the table value indicating there is a significant difference between the pre-test mean score and post-test mean score.

In the area of Breast engorgement the mean pre-test score was 1.47 with SD of 0.89 whereas post-mean score was 3.70 with SD of 0.94. The t value of 14.435 was more than the table value indicating there is a significant difference between mean pre-test and post-test score.

In the area of Mastitis and abscess the mean pre-test score was 2.58 with SD of 1.36 whereas post-mean score was 5.27 with SD of 0.73. The t value of 14.058 was more than the table value indicating there is a significant difference between mean pre-test and post-test score.

In the area of Leakage of milk the mean pre-test score was1.75 with SD of 0.95; whereas, post-mean score was 2.82 with SD of 0.54. The t value of 7.493 was more than the table value indicating there is a significant difference between mean pre-test and post-test score.

In the area of Insufficient milk/Poor supply the mean pre-test score was 0.73 with SD of 0.61; whereas, post-mean score was 1.70 with SD of 0.50. The t value of 9.101 was more than the table value indicating there is a significant difference between mean pre-test and post-test score.

In term of overall knowledge score, mean pre-test score was 16.93 with SD of 3.76 and mean post-test score was 32.22 with SD of 2.81 the observed t value of 31.751 was more than the table value indicating there is a significant difference between overall post-test score and pre-test score.

Since the observed t value was greater than the table value in all the areas at 0.05 level of significance, the null hypothesis was rejected and alternative hypothesis was accepted indicating that the structured teaching programme was effective in improving the knowledge of primigravida mothers regarding breastfeeding problems.

SECTION IV

Table 16: Association Between Pre-Test Knowledge Scores With Selected Demographic Variables.

Demographic variable	Category of response	Overall pre-test knowledge		Chi-square value	df	P-value	Statistical Inference
		Below median	Above median				
Age of mother (yrs)	21-25	24	11	0.471	1	0.493	NS
	>25	15	10				
Religion	Hindu	22	13	0.170	1	0.681	NS
	Muslim/ Christian	17	8				
Type of family	Nuclear	37	19	Fisher's exact probability = 0.438			NS
	Joint	2	2				
Educational status	Undergraduate / Graduates	28	13	0.617	1	0.432	NS
	Post-graduate	11	8				
Occupation	Private employment	28	12	1.319	1	0.251	NS
	Others	11	9				
Family income/ month	≤50, 000	16	13	2.383	1	0.123	NS
	> 50, 000	23	8				
Dietary pattern	Vegetarian	5	4	Fisher's exact probability = 0.386			NS
	Mixed	34	17				
Period of gestation	≤35	25	15	0.330	1	0.566	NS

Table 16 shows the association between the pre-test knowledge scores and selected demographic variables. A Chi-square was computed to find association between pretest knowledge score and selected demographic variables. It can be seen from the table that there is no significant association between selected demographic variable and pre-test knowledge score. Any difference in the scores observed is purely by chance and not a true difference.

Table 17: Association Between Post-Test Knowledge Scores With Selected Demographic Variables.

Demographic variable	Category of response	Overall post-test knowledge		Chi-square value	df	P-value	Statistical Inference
		Below median	Above median				
Age of mother (yrs)	21-25	21	14	0.923	1	0.337	NS
	>25	18	7				
Religion	Hindu	23	12	0.019	1	0.891	NS
	Muslim/ Christian	16	9				
Type of family	Nuclear	36	20	Fisher's exact probability = 0.562			NS
	Joint	3	1				
Educational status	Undergraduate / Graduates	26	15	0.143	1	0.705	NS
	Post-graduate	13	6				
Occupation	Private employment	25	15	0.330	1	0.566	NS
	Others	14	6				
Family income/ month	≤50, 000	20	9	0.388	1	0.533	NS
	> 50, 000	19	12				
Dietary pattern	Vegetarian	5	4	Fisher's exact probability = 0.386			NS
	Mixed	34	17				
Period of gestation	≤ 35	27	13	0.330	1	0.566	NS
	> 35	12	8				

Table 17 shows the association between the post-test knowledge scores and selected demographic variables. A Chi-square was computed to find association between post-test knowledge score and selected demographic variables.

It can be evident from the table that there is no significant association between selected demographic variable and post-test knowledge score. Any difference in the scores observed is purely by chance and not a true difference.

SUMMARY:

This chapter deals with the analysis of the data collected and its interpretation. The analyzed data are given in the tables and graphs according to the objectives of the study. The data are categorized into four parts. The first part shows the distribution of the subjects according to the socio demographic variables. The second part describes the level of knowledge of primigravida mothers before and after the administration of structured teaching programme. The third part illustrates the effectiveness of structured teaching programme. The final part deals with the association of socio-demographic variables with the level of knowledge of primigravida mothers regarding

CHAPTER – V

DISCUSSION

CHAPTER - V

DISCUSSION

This chapter presents the discussion of the findings of the study with comparison to similar studies conducted in this field that is breastfeeding problems. But, whatever the conclusion may draw from the study should be judged with accordance to its methodological shortcomings.

It is crucial to remember that the sample size is small and the samples were not matched in all areas due to constraints in resources. The present study was intended to find out the effectiveness of structured teaching programme on breastfeeding problems among primigravida mothers. It was to know the level of knowledge of primigravida mothers regarding breastfeeding problems and then to bring about an awareness about it by administering a structured teaching programme.

The present study findings are been concluded considering 60 sample size that is 60 primigravida mothers were taken in the study as participants. Based on this, the data obtained from primigravida mothers regarding the demographic variables, 58.3% in the age group of 21-25 years, 30% in the age group of 26-30 and 11.7% in the age above 30 years. Considering about the religion, majority of the primigravida mothers were Hindus (58.3%), 26.7% were Christians and 15% were Muslims. Regarding the educational status, 50% were graduates, 31.7% were post-graduates and 18.3% were undergraduates. According to the occupational status, 66.7% were private employees, 28.3% of the primigravida mothers were home maker, 3.3% were government employees and 1.7% was included in others. Regarding the family income per month, 73.4% were having a family income of 25,000-75,000 Rs 15% were having a family income of 50,001-1, 00,000 Rs and 11.7% were having family income less than 25,000.

According to their type of family 93.3% were living in nuclear family and 6.7 were living in joint family. Based on their dietary pattern, 85% were mixed and 15% were having a vegetarian diet. All the primigravida mothers were residing in urban area. With regard to period of gestation of the primigravida mothers, majority of the them 45% were in the gestational week between 31-35 weeks, 33.3% were in the gestational week 36-40 weeks and 13% were in the gestational week ≤ 30 weeks.

A descriptive study was conducted on breastfeeding problems and to know the reasons for starting top feeds in infants less than 6months was conducted in rural dindigul among 420 mother infant pairs of 224 villages. The findings showed that the onset of breastfeeding problems occurred in 31.7% of cases in the first month of life. Further analysis showed that 76.9% occurred in the first week of life, 7.7% in the second and 15.4% in the third week. Not enough milk was responsible for starting feeds in 53.6% of cases, and 23.1% of mothers had other problems like sore nipple, mastitis, breast engorgement, breast abscess and other illness. The study revealed that the onset of breastfeeding problem was alarmingly high in neonatal period and early initiation of breastfeeding lessened in the incidence of breastfeeding problems. Study concluded that the first week after delivery is crucial for the success or failure of breastfeeding. The mother may develop problems due to poor positioning of the baby, delayed initiation of breastfeeding and doubts about adequacy of milk.

In the finding of the study shows that in pre-test 90% of the primigravida mothers had an overall inadequate knowledge score regarding breastfeeding problems when compared to 10% of primigravida mothers had moderately adequate knowledge. It can be inferred that majority of the mothers had inadequate knowledge about the breastfeeding problems. The low pre-test knowledge score suggests that the

primigravida mothers should receive more information regarding breastfeeding problems.

To support this study, a descriptive study was conducted at tertiary hospitals in Pondicherry regarding antenatal counseling on breastfeeding. Every third primigravida mothers admitted in the maternity ward from June to December 2005 was recruited. Among these 144 primigravida mothers, 108 who had a minimum of three antenatal visits were booked. These 108 mothers were administered a pre-test semi structured questionnaire on breast feeding. The awareness among mothers (both counseled and not counseled) regarding health information pertaining to breast feeding was assessed. The findings of the study of the booked mothers, 21 %(n=23) had received. Some antenatal counseling about breast feeding while 79 %(n=85) had not received any such counseling. Awareness related to breastfeeding among mothers in the counseled group was better than those in 'not counseled' group. Even in the counseled group awareness among mothers with regard to correct breast feeding techniques and concept of continuing breast feeding during illness in the baby was no different from those in the 'not counseled group'. Therefore existing antenatal counseling on breast feeding is inadequate in the population studied and needs to be strengthened.

According to the post-test knowledge score regarding breastfeeding problems , it can be seen that 16.7% had moderately adequate knowledge and 83.3% of primigravida mothers had adequate knowledge regarding breastfeeding problems following structured teaching programme which shows a significant improvement in the knowledge following structured teaching programme.

To support the study that the mothers need to be given awareness regarding breastfeeding, in 2005 a study was conducted in National University Hospital Singapore by the department of obstetrics and gynecology, on simple antenatal preparation to improve breast feeding practices. A randomized controlled trial was carried out in a tertiary referral center from May 2002 to December 2004. Random samples of eligible low – risk antenatal mothers were recruited from the hospital. Group A received breast feeding educational material and individual coaching from a lactation counselor; whereas, Group B received breast feeding education material with no counseling. Group C received routine antenatal care only. Mothers receiving individual counseling and educational material practiced exclusive and predominant breast feeding more often than mother receiving routine care alone at 3 months odds ratio[OR] 2.6, 95% confidence interval[CI] 1.2- 5.4 and 6 months [OR] 2.4, 95%[CI] 1.0- 5.7 postpartum. They concluded that where breast feeding practices were suboptimal, simple antenatal education and counseling significantly improved breast feeding practice up to 3months after delivery

The present study findings showed a significant difference between the pre-test and post-test knowledge score. The analysis result of the present study shows that the mean post-test knowledge score obtained by the primigravida mothers is improved by 83.3% from a mean pre-test knowledge score of 42.33%. This is indicating an overall enhancement of 90.26% in terms of knowledge score following a structured teaching programme. In term of overall knowledge score, mean pre-test score was 16.93 with SD of 3.76 and mean post-test score was 32.22 with SD of 2.81 the observed t-value of 31.751 was more than the table value indicating there is a significant difference between overall post-test score and pre-test score. Since the observed t-value was greater than the table value in all the area at level of significance the null hypothesis can be rejected

and alternative hypothesis was been accepted indicating that the structured teaching programme was effective in improving the knowledge of primigravida mothers regarding breastfeeding problems.

The findings of the present study are justified by an experimental study conducted on a study was conducted to assess the effectiveness of structured teaching programme on knowledge and practice of breastfeeding and its problems among lactating mothers in Meenakshi Hospital, Dindigul. The descriptive evaluation study was conducted on 20 lactating mothers of hospitalized children, data collection done using a structured interview schedule and observational checklist, analysis of data revealed that 50% of mothers had satisfactory level of knowledge about the advantage of colostrums. The desirable mothers and child relationship before was 15% and after instruction was 50%, significant at P less than 0.05 levels.

In the present study, there is no significant association between selected demographic variables and pre-test knowledge score.

Here, in the present study findings revealed that there is no association between the demographic variables in regards to the post-test knowledge score of the primigravida mothers regarding breastfeeding problems.

SUMMARY:

The findings of the present study were analyzed and discussed with the findings of other similar studies. This helped the investigator to prove that the findings were true and the structured teaching programme was effective in improving the knowledge of the primigravida mothers regarding breastfeeding problems.

CHAPTER – VI

SUMMARY, CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

CHAPTER –V

SUMMARY, CONCLUSION, NURSING IMPLICATIONS, LIMITATIONS AND RECOMMENDATIONS

In this chapter, summary, conclusion, nursing implications to nursing practice, limitations and recommendations for further study are presented.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of structured teaching programme on knowledge regarding breast feeding problems among primi gravida mothers at the selected hospitals at dindigul.

OBJECTIVES

1. To assess the knowledge of primigravida mothers regarding breast feeding problems.
2. To find out the effectiveness of structured teaching programme on knowledge regarding breast feeding problems among primigravida mothers.
3. To find out the association between the pre and post test knowledge score of primigravida mothers regarding breast feeding problems and the selected demographic variable.

HYPOTHESIS

H0: There is no significant difference between pre and post test knowledge scores of primigravida mothers regarding breast feeding problems.

H0.1: There is no significant association between the pre and post test knowledge scores of primigravida mothers regarding breast feeding problems and the selected demographic variables.

H1.1: There is a significant difference between pre and post test knowledge scores of primigravida mother regarding breast feeding problems.

H1.1: There is a significant association between pre and post test knowledge scores of primigravida mothers regarding breast feeding problems and the selected demographic variables.

MAJOR FINDINGS OF THE STUDY

Findings related to demographic variables

- With regard to the age 35(58.3%) antenatal mothers were in age group of 21-25, 18(30.0%) mothers were in the age group of 26-30 and 7(11.7%) mothers were found to be above 30 years.
- Among 60 primigravida mothers, 35(58.3%) were belonged to Hindus, 16(26.7%) were Christians and 9(15%) were Muslims.
- According to type of family, it can be seen that 56(93.3%) primigravida mothers were living in nuclear family and 4(6.7%) were living in joint family.
- With regard to place of residence, all the 60 primigravida mothers (100%) were residing in the urban area.
- With regard to the educational status, majority of primigravida mothers i.e., 30(50.0%) had completed their graduates, 19(31.7%) had completed postgraduates and 11(18.3%) were under graduates.
- Distribution of primigravida mothers according to their occupation reveals 40(66.7%) were private employees, 17(28.3%) were homemakers, 2(3.3%)

were belongs to government employee and 1(1.7%) were belongs to other category.

- According to their family monthly income it can be seen that 44(73.4%) primigravida mothers had income 25,000-75,000, 9(15%) primigravida mothers had a family income between 75001-100,000 and 7(11.7%) of primigravida mothers had < 25,000.
- Among 60 primigravida mothers, 27(45%) of them were in the gestational week 31-35, 20(33.3%) were in 36-40 weeks of gestation and 13(21.7%) were in less than 30 weeks of gestation.
- With regard to source of information, all 60 antenatal mothers (100%) had no source of information.

Findings related to pre-test and post –test scores.

- In pre-test knowledge score, highest mean percentage of 63.13% was obtained in the area of physiological changes of breast during antenatal andpostnatal period and the lowest mean percentage of 28.13% was in the area of sore and cracked nipple.
- In post-test knowledge scores, the maximum mean percentage of 92.29.% was in the area of physiological changes of breast during antenatal and postnatal period and the lowest mean percentage of 67.71% was in the area of sore and cracked nipple.

Findings related to effectiveness of structured teaching programme

Overall mean percentage in post-test knowledge was found to be 80.54% and in pre-test knowledge was 42.33 %, revealing a significant difference in the knowledge level with their P-value in all areas were 0.001 which was greater than the table value

at 0.05 level of significance. Therefore the null hypothesis (H0) was rejected and research hypothesis (H1) was accepted, which depicts the effectiveness of structured teaching programme.

Findings related to association of knowledge scores with selected demographic variables

- In the present study, it is apparent that the post-test knowledge scores of primigravida mothers are found to be statistically not significant with the demographic variables i.e. age (yrs), religion, type of family, education, occupation, family income, place of residence and period of gestation..
- As expected in the hypothesis of the study, the investigator found that there is a significant improvement in the knowledge of primigravida mothers regarding breastfeeding problems after the administration of structured teaching programme. Hence it is concluded that the structured teaching programme was very effective on breastfeeding problems among primigravida mothers.

CONCLUSION

The midwifery model of care embraces a philosophy that governs the provision of care in all settings and for all types of health care services to women. The philosophy includes the belief that all women have the right to complete and accurate information about their bodies and the health care they receive; the right to make choices and decisions about their care; and the right to care that respects human dignity, individuality, and diversity. Thus, a major part of the midwife's role is to share information, to teach, and to listen. The midwifery model of care also includes a respect for normal physiological processes and focus on maintenance of health.

The present study was conducted with an aim of imparting knowledge regarding breastfeeding problems among the primigravida mothers in selected hospitals, Dindigul.

The pre-test knowledge scores obtained by the primigravida mothers revealed that majority of them had inadequate knowledge regarding breastfeeding problems. After the structured the structured teaching programme administered by the investigator, there was a significant improvement in the knowledge level of breastfeeding problems which is evident from the mean post test knowledge scores.

The study concluded that the structured teaching programme was effective in improving knowledge level of primigravida mothers regarding breastfeeding problems. By imparting adequate knowledge on these topics, the investigator believes that the participants of the study can rethink about their present health status and can be able to overcome breastfeeding problems.

NURSING IMPLICATIONS

The findings of the study have implications on the field of nursing education, nursing practice, nursing administration and nursing research.

NURSING EDUCATION

The findings of the study have lasting implications on nursing education. Education is the key component to update and improve the knowledge of an individual. It is the duty of maternity nurses to educate their clients. Hence, nurses to excel in this strategy needs to be well equipped with enormous amount of knowledge that will convince clients approaching them. In-service education regarding this topic should be

conducted to improve the knowledge of the staff nurses who are working in the obstetric departments.

NURSING ADMINISTRATION

Nurse administrators are the key persons to plan, organize and conduct in-service education programmes. Nurse administrator's support should be necessary to conduct and evaluate health education programmes. They can help to improve the knowledge of the antenatal mothers as well as the co-workers by educating each other working among them by providing various AV aids. They are in key position to organize, implement and evaluate educative programmes which will in turn helps to improve the knowledge as well as to meet the future needs and welfare of the family.

NURSING PRACTICE

Nursing is an art and a science. As a science, nursing is based upon a body of knowledge that is always changing with new discoveries and innovations. When nurses integrate the science and art of nursing into their practice, the quality of care provided to clients is at level of excellence that benefits clients in numerous ways. They are the key persons of the health team, who plays a vital role in the promotion and maintenance of health.

They can provide adequate teaching to primigravida mothers so that they can overcome the breastfeeding problems.

The major role and responsibilities can be summarized as;

1. Identifying the problems of the anticipated primigravida mothers
2. Providing appropriate information regarding the topic breastfeeding problems.

3. Helps the primigravida mothers to ventilate all their doubts by interpersonal interactions.

NURSING RESEARCH

- The main goal of the nursing research is to improve the knowledge of primigravida mothers through the implementation of evidence based practice.
- The study provides a baseline data for conducting other research studies.
- The study will be a motivation for the budding reseracher's to conduct similar studies in larger scale.
- The study will be a reference for the research scholars.
- Further research works can be conducted with every medical condition to identify most effective knowledge imparting strategies.

LIMITATIONS:

The following points were beyond the control of the investigator.

1. Study is limited only those who are willing to participate in the study.
2. Study samples were small.
3. There were limitations to complete the study.
4. The study limited to the experience of the researcher.
5. The study was confirmed to only on selected hospital, which obviously imposed limits to larger generalizations.

RECOMMENDATIONS:

On the basis of the findings of the study, the following recommendations have been made;

- A similar study can be replicated on a large scale to generalize the findings.
- A similar study can be conducted to find the differences in the knowledge level of primigravida mothers on the basis of various institutional settings such as government and private institutions.
- A similar study can be conducted to find differences the knowledge level of the nursing students as well as the nursing staffs.

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APPENDICES

APPENDIX I

A LETTER SEEKING PERMISSION TO CONDUCT THE STUDY

To,
The Medical Director,
Bharathi Mission Hospital,
Dindigul.

Subject: Permission to conduct a study in selected hospitals of Dindigul.

Sir/Madam,

This is to introduce Ms.G.Prince Rose a final year student in our college. She has to conduct a research project which is to be submitted to the Dr. MGR Medical University, Chennai in partial fulfillment of University requirement for the award of MSc (N) Degree.

Topic: "A study to assess the effectiveness of structured teaching programme on knowledge regarding breast feeding problems among primi gravida mothers at the selected hospitals at dindigul."

The student is in need of your esteemed help and co-operation as she is interested in conducting her study in your hospital. Hence, I request you to kindly grant permission and do the needful.

Thanking you,

Yours faithfully,

Place: Dindigul
Date: 01/03/2019

(Thilagavathy)

A LETTER SEEKING PERMISSION TO CONDUCT THE STUDY

To,
The Medical Director,
Meenakshi Hospital,
Dindigul.

Subject: Permission to conduct a study in selected hospitals of Dindigul.

Sir/Madam,

This is to introduce Ms.G.Prince Rose a final year student in our college. She has to conduct a research project which is to be submitted to the Dr. MGR Medical University, Chennai in partial fulfillment of University requirement for the award of M.Sc., (N) Degree.

Topic: "A study to assess the effectiveness of structured teaching programme on knowledge regarding breast feeding problems among primi gravida mothers at the selected hospitals at dindigul."

The student is in need of your esteemed help and co-operation as she is interested in conducting her study in your hospital. Hence, I request you to kindly grant permission and do the needful.

Thanking you,

Yours faithfully,

Place: Dindigul
Date: 02/03/2019 **(Prince Rose)**

Meenakshi Nursing Home

14, Spencer`S Compund, Dindigul, Tamil Nadu – 624001

Date: 31.03.2019

This is Certify **Miss. G. Prince Rose (M.Sc) N,** Student Jainee College of Nursing has conducted an experimented study to evaluate Safe mother hood among Primigraved a Mother. She has collected data for period of one month from 01.03.2019 to 31.03.2019 during her period she performed well.

Dr. S. RIYAZDEEN, B.H.M.S.,C.S.D.,
Reg. No. 2404

Signature

APPENDIX II

LETTER TO EXPERTS TO FOR THE CONTENT VALIDITY OF THE TOOL

From,

Ms.G.Prince Rose
II year M.Sc., (Nursing),
JaineeCollege of Nursing,
Dindigul

To,
Mrs. Reeta Salomon,
Thasiah College of Nursing,
Marthandam, Vellivilagam
Viricode

(Through the Principal, Jainee College of Nursing, Dindigul)

Respected madam,

Subject: Requesting the opinion and suggestion of experts for establishing the content validity of the tool.

I Ms.G.Prince Rose, II year M.Sc., Nursing student in Jainee College of Nursing, Dindigul humbly request you madam to go through the tool which is to be used for data collection for "A study to assess the effectiveness of structured teaching programme on knowledge regarding breast feeding problems among primi gravida mothers at the selected hospitals at dindigul" for further study.

The objectives of the study are the following:

1. To assess the knowledge of primigravida mothers regarding breast feeding problems.
2. To find out the effectiveness of structured teaching programme on knowledge regarding breast feeding problems among primigravida mothers.

3. To find out the association between the pre and post test knowledge score of primigravida mothers regarding breast feeding problems and the selected demographic variable.

Herewith I am sending a copy of a

A) Pretest Questionnaire

B) Posttest Questionnaire

C) Content validity certificate

I request you to kindly give your valuable suggestion regarding the appropriateness of the tool, which I have enclosed.

I also request u to kindly sign the certificate stating that you have validated the tool your kind cooperation and your experts judgement will be very much appreciated.

Thanking you,

Place: Dindigul Yours faithfully,

Date :

(G. Prince Rose)

CERTIFICATE OF CONTENT VALIDITY

This is to certify that the tool developed by Miss. G. Prince Rose, final year M.Sc., Nursing student of Jainee College of Nursing, Dindigul (affiliated to Dr. MGR Medical University) is validated by undersigned and can proceed with this tool and conduct the main study for dissertation entitled. A study to evaluate the effectiveness of Planned Teaching Program on Knowledge of primi-gravidae regarding selected aspects of "safe motherhood at selected hospital at Dindigul, Tamilnadu".

Date :

Place : Dindigul

Signature

PRINCIPAL
Thasiah College of Nursing
Marthandam - 629 165

APPENDIX III

LIST OF EXPERTS VALIDATED THE TOOL

1. **Dr. Vijila Issac, MBBS.,**
   Family Medicine,
   Van Allen Hospital
   Kodaikanal

2. **Mrs. Reeta Salomon**
   Vice Principal
   Department of OBG
   Thasiah College Of Nursing
   Marthandam

3. **Mrs. Amutha**
   Professor
   Department of OBG
   CSI College of Nursing
   Madurai

4. **Mr Prabhu,**
   HOD
   CSI College of Nursing
   Madurai

5. **Mrs. Megala**
   MSc OBG
   Jainee College of Nursing
   Dindugul

APPENDIX IV

CERTIFICATE OF STATISTICAL ANALYSIS

TO WHOMEVER IT MAY CONCERN

Certified that the dissertation paper titled "**A study to assess the effectiveness of structured teaching programme on knowledge regarding breast feeding problems among primi gravida mothers at the selected hospitals at Dindigul"** done by **Ms. G. Prince Rose**, has been checked for the accuracy in statistical analysis and interpretation and was apt for the purpose.

Place : Dindigul Signature

Date : (Amutha.V)

APPENDIX – V

CERTIFICATE FOR ENGLISH EDITING

FROM:

Ms. Prince Rose .G

MSC NURSING II – YEAR

JAINEE COLLEGE OF NURSING

DINDIGUL.

TO,

MS.D. AGNES MARY M.A. B.Ed, (English)

MOTHER TERESA WOMEN'S UNIVERSITY

KODAIKANAL

Content Validity for Questionnaire former English

This is to certify that the Questionnaire formed by Ms.Prince Rose .G. among PRIMIGRAVIDA MOTHER REGARDING BREAST FEEDING PROBLEMS IN SELECTD HOSPITAL DINDIGUL. Checked and corrected by me

M.A.,B.Ed

Signature

APPENDIX – VI

CERTIFICATE FOR TAMIL EDITING

அனுப்புநர்:

ஜா.பிரின்ஸ் ரோஸ்

எம்.எஸ்.சி நர்சிங் – 2 ஆம் ஆண்டு

ஜெய்னி செவிலியர் கல்லூரி

திண்டுக்கல்.

பெறுநர்:

ரா.ஈஸ்வரி எம்.ஏ.பி.எட் (தமிழ்)

அன்னை தெரசா மகளிர்ப்பல்கலைக்கழகம்.

கொடைக்கானல்.

தாய்ப்பால் ஊட்டும் தாய்மார்களுக்கு ஏற்ப்படும் பிரச்சனைகள் பற்றிய கேள்விகள் செல்வி ஜா.பிரின்ஸ் ரோஸ் அவர்களால் மேற்கூற்ப்பட்ட கேள்விகள் அனைத்தும் தயாரிக்கப்பட்டது. திருமதி.ரா.ஈஸ்வரி எம்.ஏ.பி.எட் அவாகளால் சரிபார்க்கப்பட்டது என்பதை தெரிவித்துக் கொள்கிறேன்.

கையொப்பம்

APPENDIX VII

TOOL FOR DATA COLLECTION INSTRUCTIONS

- Read the questions carefully
- Answer all the questions to the best of your ability
- Please tick for the appropriate answer.
- Part 1-Details with demographic data.
- Part2-Details with structured knowledge questionnaire to assess the knowledge regarding breastfeeding problems.

PART I: DEMOGRAPHIC VARIABLES

1. Code no :

2. Age of the mother

3. Religion :
   a. Hindu
   b. Muslim
   c. Christian
   d. Others

4. Educational status of the mother :

5. Occupation status of the mother
   a. Homemaker
   b. Private employee
   c. Government employee
   d. Other

6. Type of family:
   a. Nuclear family
   b. Joint family
   c. Extended family

7. Family Income per month : Rs.

8. Dietary pattern :
   a. Vegetarian
   b. Non Vegetarian
   c. Mixed

9. Place of residence :
   a. Rural
   b. Urban

10. Period of gestation :

11. Source of information on breastfeeding problems
   a. Print and electronic media
   b. Friends/neighbours
   c. Family members/relatives
   d. Health personnel
   e. No information

PART II: STRUCTURED QUESTINNAIRE

SECTION A: Physiological changes of breast during antenatal and postnatal period

1. One of the female accessory reproductive organs is
   a. Breast
   b. Uterus
   c. Ovary
   d. fallopian tube

2. Breast changes are more evident in
   a. Primigravida
   b. Obese mother
   c. Multipara
   d. Elderly mothers

3. The sensation in breast that mothers feel during their early weeks of pregnancy
   a. Numbness and pain
   b. pricking and tingling sensation
   c. itching and burning sensation
   d. pain and swelling

4. Secretions from the breast can be expressed from
   a. 8th week
   b. 12th week
   c. 16th week
   d. 20th week

5. Colostrum can be expressed from the breast from
   a. 16th week
   b. 20th week
   c. 22th week
   d. 30th week

6. Essential function of breast tissues during postnatal period is
   a. synthesis, secretion and ejection of milk
   b. synthesis , storage and maintenance of milk production
   c. synthesis, storage and ejection
   d. Secretion and maintenance of milk production

7. The most essential factor for the maintenance of continuous lactation is
   a. increased fluid intake
   b. sucking by the new born
   c. iron diet
   d. balanced diet

8. During milk secretion breasts becomes
   a. tense and warm
   b. red in color
   c. bluish in color
   d. swollen

SECTION B: BREASTFEEDING PROBLEMS

Flat and inverted nipples

9. The meaning of flat nipple is, nipple
   a. is not protractile
   b. is erect
   c. is drawn backwards
   d. is protractile

10. Effective sucking is favored by
   a. flat nipple
   b. protruded nipple
   c. cracked nipple
   d. inverted nipple

11. The best time for the prevention of flat nipple is
    a. from antenatal period onwards
    b. only at the time giving breast milk
    c. only at the end of pregnancy
    d. immediately after delivery

12. During antenatal period, flat nipple can be corrected by
    a. massaging method
    b. applying nipple shield
    c. cold compress
    d. warm compress

13. Management of flat nipples immediately after delivery is by
    a. application of emollient
    b. starting artificial feeds
    c. putting the baby to the breast
    d. breast massage

14. The meaning of inverted nipple is
    a. nipple drawn backwards
    b. swelling in the nipple
    c. pain in the nipple
    d. protruded nipple

15. Method used to treat inverted nipple is
    a. syringe method
    b. surgery method
    c. pharmacological method
    d. all the above

16. Procedure of using syringe method is
    a. cutting the nozzle end of the syringe and apply smooth side on the nipple and gently pulling it out
    b. injecting distilled water into the nipple
    c. cutting the nozzle of the syringe and applying same side to the nipple
    d. none of the above

SORE AND CRACKED NIPPLE

17. Sore nipples means
    a. crack across the nipple
    b. pus discharge from the nipple
    c. redness in the breast
    d. blisters on the nipple

18. The signs and symptoms of sore nipple, are
    a. redness and pain while feeding
    b. breast engorgement
    c. pus formation
    d. leakage of milk

19. The precautions to be taken by antenatal mothers to prevent sore nipple is
    a. to avoid the usage of soap
    b. clean the area with soap
    c. avoid application of ointment
    d. avoid massaging with oil

20. Sore nipples are NOT caused due to
    a. improper positioning
    b. sudden removal of the baby from the breast
    c. allergic reaction
    d. increased frequency of feeding

21. Sore nipple are common among
    a. primiparas
    b. multiparas
    c. grand multipara
    d. obese mothers

22. Application of a drop of milk to the nipple and areola helps in treating
    a. breast engorgement
    b. sore nipple
    c. nipple thrush
    d. flat nipple

23. Sore nipple can be treated by
    a. saline rinse
    b. washing with soap
    c. applying betadine
    d. applying spirit

24. The best time for the application of nipple ointment is
    a. at night time
    b. before feeding
    c. after feeding
    d. between the feeds

BREAST ENGORGEMENT

25. The breast engorgement means
    a. swelling and fullness of breasts
    b. insufficient milk
    c. leakage of milk
    d. infection of mammary gland

26. A common cause for breast engorgement is
    a. excessive production of colostrums
    b. delayed initiation of breastfeeding
    c. excessive intake of fluids
    d. increased frequency of breastfeeding

27. The main symptom of breast engorgement is
    a. painful and heavy
    b. inverted and cracked nipple
    c. redness and blisters on the breast
    d. pus formation and swelling

28. During breast engorgement the temperature of the body is
    a. increased
    b. decreased
    c. remains normal
    d. none of the above

29. Breast engorgement can be prevented by
    a. breastfeeding on demand
    b. massaging the breast with oil
    c. adequate rest
    d. cessation of breastfeeding

MASTITIS AND ABSCESS

30. Mastitis refers to
    a. inflammation of the nipples
    b. infection of the mammary gland
    c. fullness of breast
    d. tenderness of breast

31. An important symptom of mastitis is
    a. high grade fever and pain in the breast
    b. nausea and vomiting
    c. leaking of milk
    d. none of the above

32. One of the risk factors of mastitis is
    a. improper breast support
    b. poor hygiene
    c. frequent feeding
    d. none of the above

33. Mastitis is caused by
    a. entry of microorganism
    b. improper feeding technique
    c. imbalanced food intake
    d. delayed initiation of feeding

34. An important measure for preventive mastitis is
    a. application of ointment
    b. discontinuing breastfeeding
    c. emptying the breast by continuous breast feeding
    d. balanced diet

35. One of the complication of mastitis is
    a. poor milk supply
    b. pus formation
    c. leakage of milk
    d. sore nipple

LEAKAGE OF MILK

36. Leakage of milk is seen in the case of
    a. blocked ducts
    b. inverted nipple
    c. long intervals between feeds
    d. flat nipple

37. The cause of leakage of milk is
    a. hormonal stimulation
    b. over fullness
    c. big nipple
    d. flat nipple

38 A measure useful in stopping leakage of milk
    a. sucking good position
    b. frequent sucking
    c. massaging the breast
    d. hurried breastfeeding

INSUFFICIENT MILK/ POOR SUPPLY

39. The best method to increase milk production is
    a. increase the frequency of feeding
    b. increase fluid intake
    c. intake of protein rich diet
    d. all the above

40. The mother can identify that the baby is getting adequate milk is by
    a. adequate weight gain and good sleep
    b. adequate weight gain and urinating 6-8 times/day
    c. adequate weight gain and no crying
    d. none of the above

ANSWER KEY FOR STRUCTURED QUESTIONNAIRE

Item No	Correct response	Item no	Correct response
1	a	32	b
2	a	33	a
3	b	34	c
4	b	35	b
5	a	36	c
6	a	37	a
7	b	38	b
8	a	39	d
9	b	40	b
10	b		
11	a		
12	b		
13	c		
14	a		
15	a		
16	a		
17	a		
18	a		
19	a		
20	d		
21	b		
22	b		
23	a		
24	c		
25	a		
26	b		
27	a		
28	a		
29	a		
30	b		
31	a		

பகுதி – அ

1. எண்

2. தாயின் வயது

3. மதம்
   அ. இந்து
   ஆ. இஸ்லாமியர்
   இ. கிறிஸ்தவம்
   ஈ. மற்றவை

   1. தாயின் கல்வித்தகுதி
   2.

5. தாயின் வேலை
   அ. வீட்டில் இருப்பவர்
   ஆ. தனியார் நிறுவனத்தில் வேலை செய்பவர்
   இ. அரசு வேலை செய்பவர்
   ஈ. மற்றவை

6. குடும்பத்தின் வகை
   அ. தனி குடும்பம்
   ஆ. கூட்டுக் குடும்பம்
   இ. விரிவுபட்ட குடும்பம்

7. குடும்ப வருமானம்

8. உணவு முறை
   அ. சைவம்
   ஆ. அசைவம்
   இ. இரண்டும்

9. வசிக்குமிடம்
   அ. கிராமப்புறம்
   ஆ. நகர்ப்புறம்

10. கர்ப்பகாலம்

11. தாய்ப்பால் பிரச்சனைகள் பற்றிய தகவல்களின் ஆதாரம்

அ. அச்சு மற்றும் மின்னணு ஊடகங்கள்

ஆ. நண்பர்கள் / அண்டை வீட்டார்

இ. குடும்ப உறுப்பினர்கள் / சொந்தக்காரர்

ஈ. சுகாதார பணியாளர்கள்

எ. தெரியவில்லை

பகுதி – ஆ

பிரிவு – அ பிறப்புக்கு முந்தைய மற்றும் பிரவசத்திற்கு பிந்தைய காலத்தில் மார்பகத்தின் உடலியல் மாற்றங்கள்

1. இனப்பெருக்கத்தின் துணை உறுப்பு எது?

அ. மார்பகம்

ஆ. கருப்பை

இ. சினைப்பை

ஈ. கருப்பை குழாய்

2. மார்பகத்தின் மாற்றம் யாருக்க அதிகமாக காணப்படும்

அ. ஒரு குழந்தை பெற்ற தாய்

ஆ. எடை அதிகமுள்ள தாய்

இ. ஒன்றுக்கு மேற்பட்ட குழந்தை பெற்ற தாய்

ஈ. வயதான தாய்

3. கர்ப்பத்தின் ஆரம்ப காலங்களில் தாய்மார்கள் உணரும் மார்பகத்தின் உணர்வு?

அ. உணர்வின்மை மற்றும் வலி

ஆ. கூச்ச உணர்வு

இ. அரிப்பு மற்றும் எரிச்சல்

ஈ. வலி மற்றும் வீக்கம்

4. மார்பகத்தின் சுரப்பு எப்பொழுது வெளிப்படலாம்?

அ. 8வது வாரம்

ஆ. 12வது வாரம்

இ. 16வது வாரம்

ஈ. 20வது வாரம்

5. சீம்பால் எப்போது வெளிப்படலாம்

அ. 16வது வாரம்

ஆ. 20வது வாரம்

இ. 22வது வாரம்

ஈ. 30வது வாரம்

6. பிரசவத்திற்கு பிந்தைய காலத்தில் மார்பக திசுக்களின் அத்தியாவசிய செயல்பாடு

அ. சுரப்பு மற்றும் பால் வெளியேற்றும்

ஆ. சேமிப்பு மற்றும் பால் உற்பத்தி செய்தல்

இ. சேமிப்பு மற்றும் வெளியேற்றம்

ஈ. சுரப்பு மற்றும் உற்பத்தி செய்தல்

7. தொடர்ச்சியான பாலின் பராமரிப்பிற்கு மிகவும் அவசியமான காரணம்

அ. அதிக அளவு நீராகாரம் எடுத்துக் கொள்ளல்

ஆ. பச்சிளம் குழந்தை உறிஞ்சுதல்

இ. இரும்புச் சத்து உணவு

ஈ. சமநிலை உணவு

8. தாய்ப்பால் சுரப்பின் போது மார்பகம்

அ. சூடாக இருக்கும்

ஆ. சிவப்பு நிறமாக இருக்கும்

இ. நீலநிறம்

ஈ. வீக்கம்

தாய்ப்பால் பிரச்சனைகள்

தட்டையான மற்றும் தலைகீழ் முலைக்காம்பு

9. தட்டையான மற்றும் தலைகீழ் முலைக்காம்பு என்றால் என்ன?

அ. நீடித்தது அல்ல

ஆ. நிமிர்ந்தது

இ. பின்னோக்கியது

ஈ. நீடித்தது

10. பயனுள்ள உறிஞ்சுதல் என்பது?

அ. தட்டையான முலைக்காம்பு

ஆ. நீடித்த முலைக்காம்பு

இ. விரிசல் முலைக்காம்பு

ஈ. தலைகீழ் முலைக்காம்பு

11. தட்டையான முலைக்காம்பை தடுப்பதற்கான சிறந்த நேரம்

அ. பிறப்புக்கு முந்திய காலத்திலிருந்தே

ஆ. தாய்ப்பால் கொடுக்கும் நேரத்தில்

இ. கர்ப்ப காலத்தின் முடிவில் பிரசவித்த உடன்

ஈ. பிரசவித்தவுடன்

12. பிறப்புக்கு முந்தைய காலத்தில் தட்டையான முலைக்காம்பை எப்படி சரி செய்யலாம்?

அ. மசாஜ் செய்யலாம்

ஆ. முலைக்காம்பு கவசம்

இ. குளிர்ச்சியாக்கலாம்

ஈ. சூடாக்கலாம்

13. பிரசவத்திற்கு பிறகு தட்டையான முலைக்காம்புகளை எப்படி நிர்வகிப்பது?

அ. களிம்பு

ஆ. செயற்கை உணவு

இ. குழந்தையை மார்பகத்தில் வைப்பது

ஈ. மார்பகத்தை மசாஜ் செய்வது

14. தலைகீழ் முலைக்காம்பு என்றால் என்ன?

அ. முலைக்காம்பு பின்னோக்கியது

ஆ. முலைக்காம்பு வீங்கியது

இ. முலைக்காம்பில் வலி

ஈ. நீடித்த முலைக்காம்பு

15. தலைகீழ் முலைக்காம்பை சரி செய்யும் முறை சிரிஞ்சின்

அ. சிரிஞ்ச் முறை

ஆ. அறுவை சிகிச்சை

இ. மருத்துவ முறை

ஈ. அனைத்தும்

16. சிரிஞ்சின் முறையைப் பயன்படுத்தும் முறை?

அ. சிரிஞ்சின் முனைப் பகுதியை வெட்டி முலையில் பொருத்தி மெதுவாக வெளியே எடுத்தல்

ஆ. நீரை முலையில் செலுத்துதல்

இ. முனைப்பகுதியை வெட்டி அதே பகுதியை முலையில் பொருத்துதல்

ஈ. மேற்கூறிய எதுவுமில்லை

17. புண் மற்றும் விரிசல் முலைக்காம்புகள் முலைக்காம்பு என்றால் என்ன?

அ. விரிசல் உள்ள முலைக்காம்பு

ஆ. சீழ் வெளியேற்றம்

இ. சிவந்த மார்பகம்

ஈ. கொப்புளங்கள் உள்ள மலைக்காம்பு

18. புண் முலைக்காம்பின் அறிகுறிகள் என்ன?

அ. சிவந்த மற்றும் வலியுடன் காணப்படும்

ஆ. ரத்த நாள வீக்கம் காணப்படும்

இ. சீழ் உருவாகுதல்

ஈ. பால் வெளியேறுதல்

19. புண் முலைக்காம்பை பிரசவத்திற்கு முன்பு எப்போது தடுப்பது?

அ. சோப்பை உபயோகப்படுத்தக் கூடாது

ஆ. சோப்பினால் சுத்தம் செய்யலாம்

இ. களிம்பு பயன்படுத்தக் கூடாது

ஈ. மசாஜ் செய்யக் கூடாது

20. புண் முலைக்காம்பு எது காரணமில்லை?

அ. முறையற்ற நிலை

ஆ. மார்பகத்திலிருந்து உடனே குழந்தையை எடுத்தல்

இ. ஒவ்வாமை

21. புண் முலைக்காம்பு யாருக்கு அதிகமாக இருக்கும்?

அ. முதல் குழந்தை பெற்ற தாய்

ஆ. ஒன்றுக்கு மேற்பட்ட குழந்தை பெற்ற தாய்

இ. குழந்தை பெற்ற தாய்

ஈ. எடை கூடிய தாய்

22. முலைக்காம்பு மற்றும் அதனை சுற்றியுள்ள பகுதியில் ஒரு சொட்டு பால் பயன்படுத்துவது எந்த சிகிச்சைக்கு உதவுகிறது?

அ. இரத்த நாள வீக்கம்

ஆ. புண் முலைக்காம்பு

இ. முலைக்காம்பு வெண் புண்

ஈ. தட்டையான முலைக்காம்பு

23. புண் முலைக்காம்பை எவ்வாறு சரி செய்யலாம்?

அ. நீர் கொண்டு கழுவுதல்

ஆ. சோப்பை கொண்டு கழுவுதல்

இ. பீட்டாடின் பயன்படுத்துதல்

ஈ. ஸ்பிரிட் பயன்படுத்துதல்

24. முலையில் களிம்பு பயன்படுத்த சரியான நேரம் எது?

அ. இரவில்

ஆ. பால் கொடுப்பதற்கு முன்

இ. பால் கொடுத்த பின்

ஈ. பால் கொடுக்கும் இடைவெளியில்

இரத்த நாள வீக்கம்

25. இரத்த நாள வீக்கம் என்றால் என்ன?

அ. வீக்கம் மற்றும் மார்பகம் நிரம்பு இருத்தல்

ஆ. பால் பற்றாக்குறை

இ. பால் வெளியேறுதல்

ஈ. பாலூட்டி சுரப்பியின் தொற்று

26. மார்பக இரத்த நாளத்தின் அறிகுறி என்ன?

அ. அதிக அளவு சீம்பால் சுரத்தல்

ஆ. தாய்ப்பால் கொடுப்பதை தாமதப்படுத்துதல்

இ. அதிக அளவு நீராகாரம் எடுத்தல்

ஈ. தாய்ப்பால் கொடுக்கும் இடைவெளியை அதிகப்படுத்துதல்

27. இரத்த நாள வீக்கத்தின் முக்கிய அறிகுறிகள் என்ன?

அ. வலி மற்றும் மார்பகம் நிரம்பி இருத்தல்

ஆ. உள்நோக்கிய மற்றும் விரிசல் உள்ள முலைக்காம்பு

இ. சிவந்த மற்றும் கொப்புளங்கள் உள்ள மார்பகம்

ஈ. சீழ் மற்றும் வீக்கம் உள்ள மார்பகம்

28. மார்பக இரத்த நாள வீக்கத்தின் போது உடல் வெப்பநிலை எவ்வாறு இருக்கும்?

அ. அதிகமாக

ஆ. குறைவாக

இ. சமமாக

ஈ. மேற்கூறிய எதுவும் இல்லை

29. இரத்த நாள வீக்கத்தை எவ்வாறு தடுக்கலாம்?

அ. தேவைக்கேற்ப தாய்ப்பால்

ஆ. மார்பகத்தை எண்ணெய் கொண்டு மசாஜ் செய்தல்

இ. தேவையான ஓய்வு

ஈ. தாய்ப்பால் கொடுப்பதை நிறுத்துதல்

முலை அலர்ஜி மற்றும் கட்டி

30. முலை அலர்ஜி என்பது?

அ. முலைக்காம்பு வீக்கம்

ஆ. பாலூட்டி சுரப்பியின் தொற்று

இ. மார்பகம் நிரம்பி இருத்தல்

ஈ. மார்பகம் மென்மையாக இருக்கும்

31. முலை அலர்ஜியின் முக்கிய அறிகுறி

அ. அதிக காய்ச்சல் மற்றும் மார்பகத்தில் வலி

ஆ. குமட்டல் மற்றும் வாந்தி

இ. பால் வெளியேறுதல்

ஈ. மேற்கூறிய எதுவும் இல்லை

32. முலை அலர்ஜியின் ஆபத்தான காரணிகளில் ஒன்று?

அ. முறையற்ற மார்பக ஆதரவு

ஆ. சுத்தமில்லாமல் இருப்பது

இ. அடிக்கடி உணவு அளித்தல்

ஈ. மேற்கூறிய எதுவும் இல்லை

33. முலை அலர்ஜி உருவாக காரணம் எது?

அ. நுண்ணுயிரி உள்நுழைதல்

ஆ. முறையற்ற உணவு ஊட்டல்

இ. சரியற்ற உணவு உட்கொள்ளல்

ஈ. தாமதமாக உணவு கொடுத்தல்

34. முலை அலர்ஜி தடுப்பதற்கான ஒரு முக்கியமான நடவடிக்கை

அ. களிம்பு பயன்படுத்துதல்

ஆ. தாய்ப்பால் கொடுப்பதை நிறுத்துதல்

இ. தொடர்ச்சியான பாலூட்டுதல் மூலம் மார்பகத்தை காலியாக்குதல்

ஈ. சரிவிகித உணவை எடுத்துக் கொள்ளுதல்

35. முலை அலர்ஜியினால் வரும் சிக்கல் என்ன?

அ. மோசமான பால் வழங்கல்

ஆ. சீழ் உருவாகுதல்

இ. பால் வெளியேறுதல்

ஈ. புண் முலைக்காம்பு

பால் வெளியேறுதல்

36. பால் வெளியேறுதல் எதில் காணப்படும்

அ. அடைப்பு

ஆ. உள்நோக்கிய முலைகள்

இ. ஊட்டங்களுக்கு இடையில் நீண்ட இடைவெளிகள்

ஈ. தட்டை முலைக்காம்பு

37. பால் வெளியேறுதலின் தூண்டுதல் காரணம் பால் வெளியேறுதல்

அ. ஹார்மோன் தூண்டுதல்

ஆ. அதிகமாக மார்பகம் நிரம்பி இருத்தல்

இ. பெரிய முலைகள்

ஈ. தட்டையான முலைக்காம்பு

38. பால் கசிவை நிறுத்த பயனுள்ள ஒரு நடவடிக்கை எது?

அ. சரியான நிலையில் உறிஞ்சுதல்

ஆ. அடிக்கடி உறிஞ்சுதல்

இ. மார்பகத்தை மசாஜ் செய்தல்

ஈ. பற்றாக்குறையான பால் மோசமான வழங்கல்

39. தாய்ப்பால் உற்பத்தியை அதிகரிக்க சிறந்த வழி எது?

அ. உணவளிப்பதை அதிகப்படுத்துதல்

ஆ. நீராகாரம் அதிகமாக எடுத்துக்கொள்ளல்

இ. புரதசத்து அதிகமுள்ள உணவை எடுத்துக் கொள்ளல்

ஈ. மேற்கூறிய அனைத்தும்

40. குழந்தைகளுக்கு போதிய அளவு பால் கொடுக்கப்பட்டுள்ளது என்பதை தாய் அறிந்து கொள்ள சிறந்த முறை

அ. சரியான உடல் எடை கூடுதல் மற்றும் நல்ல உறக்கம்

ஆ. சரியான உடல் எடை கூடுதல் மற்றும் 6-8 முறை சிறுநீர் கழித்தல்

இ. சரியான உடல் எடை மற்றும் குழந்தை அழாமல் இருப்பது

ஈ. மேற்கூறிய எதுவும் இல்லை.

FORMULAS USED FOR STATISTICAL ANALYSIS

Spearman-Brown Prophecy Formula for Reliability Test

$$= \frac{2r\, r^{1}}{1 + r}$$

where, r is the correlation co-efficient completed on the split half. r^{1} = estimated reliability of the entire test.

For calculating the correlation co-efficient (r),

$$r = \frac{\sum xy}{\sqrt{\sum x^2 \sum y^2}}$$

Calculation of Mean, Standard Deviation and Standard Error

$$\text{Mean (M)} = \frac{\sum Xi}{N}$$

Where $\sum$ = The symbol used for summation

Xi = Value of ith item

N = Total number of items

$$\text{Standard Deviation (SD)} = \sqrt{\frac{\sum (Xi - \overline{X})^2}{n - 1}}$$

where $\sum$ = The symbol used for summation

Xi = Value of i^{th} item

$\overline{X}$ = Mean of the i^{th} items

N = Total number of items

$$\text{Standard Error (SE)} = \frac{S(\sigma)}{\sqrt{n}}$$

where, S (σ) is the sample standard deviation and n is the size of that sample.

Calculation of Person's Chi-square Value

$$\text{Chi-square } (\chi^2) = \frac{\sum (O - E)^2}{E}$$

where $\sum$ = The symbol used for summation

O = The observed frequencies

E = The expected frequencies

Calculation of Paired 't' , Unpaired 't' and 'z' Values

$$\text{Paired 't'} = \frac{|\bar{d}|}{\text{SE of difference values}}$$

where $|\bar{d}|$ = The symbol used for mean of the differences (i.e., Xi – Yi)

$$\text{SE of difference values} = \frac{\sigma d}{\sqrt{n}}$$

$$\sigma d = \frac{\sum di^2 - (\sum di)^2 / n}{\sqrt{n - 1}}$$

where σd = standard deviation of d $(X_1 - X_2)$

$\sum di^2$ = summation of d^2 or $(X_1 - X_2)^2$

$(\sum di)^2$ = square of summation of d or $(X_1 - X_2)$ n

= total number of items

Calculation of Unpaired 't' Test

$$\text{Unpaired 't'} = \frac{|\bar{X}_1 - \bar{X}_2|}{S \sqrt{1/n_1 + 1/n_2}}$$

where $\bar{X}_1$ = Mean of first observations X_2 = Mean

$\overline{\text{of}}$ second observations n_1 and n_2 are = Total

number of observations

Calculation of 'z' Test

$$z = \frac{|\overline{X_1} - \overline{X_2}|}{\sqrt{\sigma_1/n_1 + \sigma_2/n_2}}$$

where $\overline{X_1}$ = Mean of first observations and σ_1 is the standard deviation for it.

$\overline{X_2}$ = Mean of second observations and σ_2 is the standard deviation for it.

n_1 and n_2 are = Total number of observations

APPENDIX - VIII

PLAGIARISM

	Plagiarism Detector – Originality Report
	Plagiarism Detector project: [http:// plagiarism-detector.com] Application core version : 622

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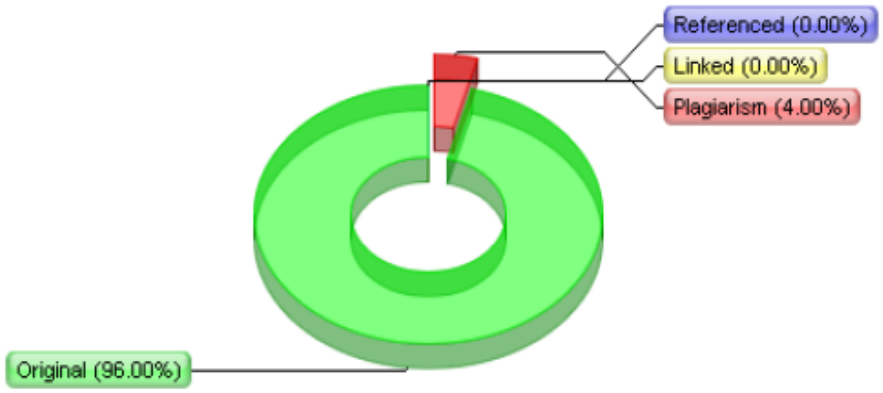

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CERTIFICATE II

This is to certify that this dissertaion work titled "**A study to assess the effectiveness of structured teaching programme on knowledge regarding breast feeding problems among primi gravida mothers at the selected hospitals at dindigul"** of the candidate **Ms. G. Prince Rose** with Registration Number **301723052** for the award of **M.Sc Nursing** programme in the branch of **Obstetrics and Gynecological Nursing**, I personally verified the urkund.com website for the purpose of plagiarism Check. I found that the uploaded thesis file contains from introduction to conclusion pages and resuilt shows Original 96% Plagiarism 4% percentage of plasgiarism in the dissertation.

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APPENDIX IX

PHOTOGRAPHS


BREAST CARE